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THE

CULTIVATOR,

A MONTHLY

JOURNAL FOR THE FARM AND THE GARDEN,

DEVOTED TO

AGRICULTURAL AND RURAL IMPROVEMENT,

AND

DESIGNED TO IMPROVE THE SOIL AND THE MIND.

ILLUSTRATED WITH ENGRAVINGS OF COUNTRY HOUSES AND FARM BUILDINGS,
DOMESTIC ANIMALS, FARM IMPLEMENTS, &c.

VOL. IV.—THIRD SERIES.—1856.

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INDEX TO VOL. IV.......1856.

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[EXPLANATION.—It will be seen that we have adopted a new plan in making out the Index for this volume. We have divided it into *Five Departments*—I. THE FARM—II. DOMESTIC ANIMALS—III. THE DAIRY—IV. DOMESTIC ECONOMY—V. HORTICULTURAL. This will facilitate reference, as one can at once refer to the department desired, without the necessity of looking over the whole index.]

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THE CULTIVATOR.

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THIRD To Improve the Soil and the Mind. SERIES.

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The New-Year.

In presenting the first number of our new volume, we solicit for it the kind attention of its old friends, as well as of all those who take any interest in the progress of agricultural improvement. There are several reasons why THE CULTIVATOR should have an extensive circulation, not only in this State, but also in every State in the Union. The first, because it is pre-eminently an American work, its contents consisting in a great degree, of the practice, experience and suggestions of the best farmers of our own country. Another is, its cheapness, which places it in the reach of every one in the least disposed to read, and enables every one who now patronizes his local journals, to add this to his list at an expense so trifling as to be of no account when compared with its value. Indeed, could its claims be fairly presented to the farmers, we have no doubt that its subscription might easily be raised to Fifty Thousand. We mean to make it worthy of such a circulation, and we respectfully solicit from its readers and friends, the efforts in its behalf necessary to accomplish this very desirable object, not less for them than for ourselves.

All persons who receive this paper, are authorized and requested to aid in the work, and we will, as an inducement to exertion in every neighborhood, *as soon as Ten Subscribers are procured, supply them all with* THE CULTIVATOR *and* REGISTER *for* $5; having little doubt that some additional exertion this, or even another year, will secure at least the full club number in the end. We make this offer with the less hesitation, as we hope that by its means we can attract the attention of some to our Club terms, who would otherwise rest satisfied with sending their own single subscriptions, and with confidence that all that is needed to secure the widest circulation for the two periodicals, is a general acquaintance with their intrinsic and permanent value on the one hand, and the cheapness of their price on the other.

Terms of the Cultivator.

FOR A SINGLE COPY,	FIFTY CENTS.
FOR TWENTY COPIES, with REGISTER for 1856 to each,	$10.00

☞ Clubs need not necessarily take their papers from the same Post-Office—they will be sent to as many different offices as may be required.

☞ The money in all cases to accompany the order, and subscriptions invariably to commence with the January number.

Terms of the Country Gentleman.

One copy, one year,		$2.00
Three copies,	"	5.00
Five copies,	"	8.00
Ten copies,	"	15.00

☞ Payment must be made in advance—or fifty cents per year will in all cases be added to the above terms.

BUSINESS NOTICES.

If our correspondents will read and remember, when writing to us, the following notices, they will save us much trouble, and greatly increase the certainty of a prompt compliance with their orders:

Dating Letters.

☞ It is of the greatest importance, that every person writing us should give his full Post Office address—naming *Post Office*, *County* and *State*—for instance, as follows:

Shutsville, *Jefferson Co.*, *Ky.*, *Oct.* 1, 1855.

If all our correspondents would thus commence their letters, and be careful to write their names plainly, it would save us much labor and vexation, and secure a prompt and correct fulfilment of their requests.

☞ Great care should be taken to write the name and address of each subscriber distinctly, thus:

"*John Smith*,....*Lenox*,....*Berkshire Co.*,....*Mass.*"

Subscribers in British Provinces.

We have to pay the United States postage on all papers to the British Provinces; and this we cheerfully do, to all subscribers who pay the single copy price of $2.00 for the Country Gentleman, and Fifty Cents for The Cultivator; but on all clubs, the U. S. postage must be added. Hence our club terms to them for the latter will be—

20 copies and the REGISTER to each,	11.60
And for the COUNTRY GENTLEMAN,	
3 copies	$5.75
10 copies,	17.50

The Illustrated Annual Register.

Two numbers of this work are now issued—for 1855 and 1856—and it will hereafter be published regularly, toward the close of each year; and every person who takes any interest in rural affairs should be careful to secure the work from its commencement. In a few years it will form a more valuable RURAL LIBRARY than can be procured in any other shape for ten times the money.

PRICE—in paper covers—25 cents—Five copies, $1—Twelve copies, $2. Bound in muslin, 50 cents. *Sent by mail, post-paid.*

Postage on Our Publications.

On the Cultivator, per year,	6 cents.
Country Gentleman, per year,	26 cents.
except in Albany county, where it is free.	
Illustrated Annual Register, if *prepaid*.	2 cents.
Payable *where delivered*	4 cents.

Agents can remit, at *two* cents per copy for the Register and have the postage paid here, or let the subscribers pay four cents on delivery, as they prefer. The postage on the papers must be paid quarterly in advance, *at the post offices where delivered.*

The Cultivation of Potatoes.

A light soil abounding in rich organic matter is found by experience to produce the largest crops of potatoes; but since the visitation of that mysterious scourge the "Potato Disease," it has been found advantageous to cultivate them on light, *poor* soil, for while the rich soil in many instances continues to grow the largest crop, the tubers are so diseased and unpalatable that a small sound crop is more profitable. The poor sandy soils around this city are now planted with potatoes to an extent that almost exceeds belief. We were in the town of Watervliet a short time since, and called upon several farmers in the town in order to ascertain a few facts in regard to the cultivation and yield of their staple crop. We went along three roads, enclosing a triangular piece of land containing somewhat more than a square mile, and called on thirty farmers whose houses were near the road. These thirty farmers raised the past year *seventy-six thousand, six hundred and twenty-two bushels of potatoes*. Several of the farms were more than half planted every year with potatoes, and on two or three farms three fourths of the land was thus occupied. On one farm, that of L. & A. Gove, 8750 bushels were raised this year. D. D. T. More, on 55 acres, raised 6250 bushels. The Messrs. Osborn on 88 acres, 7710 bushels. J. Ferris, 7500 bushels, and many others raise annually three, four and five thousand bushels of potatoes.

The yield per acre is not large; the average of these farms where we could ascertain the number of acres planted, was 102½ bushels per acre, the highest *farm* being 133 bushels per acre—in this instance three fourths of the farm, (a small one,) was in potatoes.

Peruvian guano is used to a considerable extent, and is found a cheap and effective fertilizer. In one instance we found a field where potatoes had been grown four years in succession manured with guano, and the crop this season was the best it had ever produced, averaging 150 bushels per acre. It is somewhat remarkable that this light, sandy soil, which we should suppose poor in all the mineral elements of plants but especially in potash, should thus annually yield a fair crop of potatoes, which of all our agricultural plants removes from the soil the most potash; and that Peruvian guano should prove such a powerful fertilizer, while of all manures it is the poorest in potash—containing not more than 2 per cent.

A good clover sod, plowed under immediately before planting, is considered the best preparation for potatoes, though since the introduction of guano potatoes are frequently planted after potatoes, corn, rye, &c. Plaster, about 2 bushels per acre, either sown broadcast or scattered on the hills just as the plants are breaking the soil, is an effective fertilizer and is used to a considerable extent. Plaster on this sandy soil, has a highly beneficial effect on clover.

Potatoes of medium size, are usually planted whole, in hills about 2½ feet apart, 10 bushels of seed per acre. Plant as early in the spring as the soil will admit, and many farmers continue planting as late as the first week in June. We saw some planted the tenth of June, but the crop was light. The Mercer, although a poor producer, is the favorite variety, now commanding the highest price. The *Long Johns* will yield one third more per acre, but they bring a less price and when the market is dull, it is difficult to sell them at all.

A few farmers still draw manure from the city, three miles, but since the introduction of guano the practice is becoming less common every year.

We met with a few good old farmers who had never tried guano, and had "no faith in it;" but all who had used it, without exception, thought it a "powerful" manure; yet we were somewhat surprised to find that not one could give even a good Yankee guess as to the number of bushels of potatoes over and above the unmanured soil 100 lbs. of guano would produce. Mr. D. D. T. MORE used 200 lbs. of Peruvian guano on potatoes side by side with "Northern Marl,"—an article, we believe, which is said to contain a large quantity of phosphate of lime;—the marl did *no good*, while the guano "increased the crop fully one third." Mr. More's crop averaged 113 bushels per acre. so according to this, 200 lbs. of guano increased the crop 28 bushels per acre. The *safest* way to apply guano is to sow it broadcast and plow and harrow it in immediately; but it will produce a greater effect if placed in the hill with the potato, but great care is necessary to incorporate it well with the soil, for it will assuredly kill the seed if it comes in contact with it.

There is nothing remarkable about the method of cultivating potatoes in this district; the reason why farmers have engaged so extensively in their cultivation is to be ascribed to the almost total exemption from the rot, which is so injurious in richer and heavier soils.

Cure for Foul Feet.

I observe in the country Gentleman of Oct. 11th, 235th page, an inquiry for cure of "Disease in the Feet of Cattle." The disease described is here called *Foul Feet*, and my foreman Jowitt, assures me the following treatmant effects a certain cure:

1st. Make frequent application of warm bran poultices for 2 or 3 days.

2d. Remove the poultice and wash with warm stale urine.

3d. Mix ¼ lb. of finely pulverized copperas with tar, and saturate tow or flax with the mixture,—enough to cover the diseased parts—and bind on with a cloth. Change the application daily until the foot is well. Two or three applications are usually sufficient. S. A. JOHNSON. *Manchester, England.*

A PORTABLE GRIST MILL.—The editor of the *Germantown Telegraph*, recently, while at Boston, saw Felton's patent portable grist mill in operation. He says: "We examined it with some care, and before we left it, we were very much impressed with its many good qualities, and perfect adaptedness to the use of farmers. It is self-sharpening and warranted to grind 4000 bushels of the hardest flint corn without renewing or dressing the grinding surface. With a single horse endless chain power, which now nearly every farmer possesses, five bushels of feed can be ground per hour, and double the quantity with two horses. It also has an addition, by which corn in the cob can be ground with great facility and in the best manner. The price of these mills is $60, ready for use, $70 with the Corn Cob Crusher attached. Any letters addressed to WILKINSON & FITCH, Pittsfield, Mass., on the subject, will receive due attention."

A Few Words on Underdraining.

There is no subject so eminently worthy the earnest attention of American farmers, as that of underdraining. It is erroneous to suppose that *all* land needs underdraining, but we may assume that the greater portion of all the arable, and much of the grass land of this continent, would be much improved by the removal of all surplus water by means of underground conduits. The only question is, will it pay. Where land is sold for $5 per acre, it is hardly to be supposed that it will pay to expend six times the fee simple of the farm in underdraining it. But where land is worth from $50 to $150 per acre in its underdrained state, we hesitate not to say that nothing will pay better than an expenditure of $20 or $30 per acre in a judicious process of underdraining. For some years at least, underdraining alone will increase the products of most farms from one-third to one-half, and there are many instances on record where it has *doubled* the crops. Wm. P. Ottley, of Phelps, Ontario Co., N. Y., to whom the N. Y. State Ag. Society awarded the first premium in 1854, for the best managed farm, and the second premium for experiments in draining, says: "It is safe reckoning that draining will pay for itself, with interest of cost, in two crops." This is also the opinion of John Johnston and Robert S. Swan, of Geneva, who have laid about *sixty-three* miles of tile underdrains on their farms.

Mr. Ottley laid a portion of his drains with stone at a cost of 40 cents per rod, and the other portion with tiles at a total cost of 31½ cents per rod. The drains were dug 2½ feet deep, and were cut in such parts of the field only as appeared to need underdraining. We should advocate a more thorough system, but "half a loaf is better than no bread," and, indeed, the result of this partial drainage was in the highest degree satisfactory, increasing the value of the land "not less than $5 per acre annually, together with ease and comfort of tillage."

This "ease and comfort of tillage" is no slight advantage. Underdrained land can be plowed earlier in the spring and later in the fall, than that which is undrained; and after heavy rains, while the undrained land is too wet for man or beast to work on, the drained soil is sufficiently dry to allow the usual farm labors to proceed without interruption.

Underdraining lies at the foundation of all agricultural and horticultural improvement, and it is as unwise to expend money in attempting to increase the fertility of a farm that needs underdraining by deep plowing, and good cultivation alone, or by the application of natural or artificial manures, &c., as it would be to build an expensive house on quicksand. In improving a farm, as in everything else, you must "begin at the beginning." This is the only true economy. Provide means for speedily removing all excess of water from the land, and you are then, and not till then, in a condition to carry out any other improvement that may be desired.

How often in riding along the New-York Central Railroad from this city to Buffalo, have we been saddened at the sight of so many thousands of acres of valuable land surcharged with the elements of fertility, but which, for lack of underdraining, yield crops that barely remunerate the hard-working cultivator for his labors! And yet this road passes through the best districts of the Empire State, and the farmers as a whole, will compare favorably for intelligence and enterprise, with those of any State or country in the world. We have seen this year in our trips about the country, thousands of acres of corn that would not yield ten bushels of sound ears per acre, and hundreds of acres in the aggregate, where the crop was a total failure, and this not from "exhaustion of the soil," or poor cultivation, but simply because the land needed draining. As long as the country is new, and the roots of trees afford a kind of natural drainage, land suffers little from drouths and wet seasons—it is partially underdrained. But as the roots decay out, the natural conduits are filled up, and we must go to work and provide artificial ones.

"All this is true," a farmer at our side replies, "but I cannot afford to underdrain. It is a very expensive operation, and I have not the money to spare. I know quite well that my crops this year were not half what they would have been, had the land been underdrained, but then the idea of spending $20 or $30 per acre in draining, is in my case simply impossible; I have not the means to do it with."

But would it not be better to sell a portion of your farm, and expend the money in underdraining the other portion? We know that under certain circumstances it is desirable to hold land, even if nothing is received from it, the "rise in real estate" making up for the loss; but this aside, it is far better to have 100 acres of well-drained land, than 150 that, from lack of draining, produces only half a crop. We speak advisedly when we say that the former can be carried on with half the labor of the latter, while the crops are one-third larger.

"True, but if I should sell off one-quarter of my farm, and expend the money in improving the other three-fourths, I should not be able to sell the improved 100 acres for enough more to pay me back the money buried in underdrains. People wont pay for improvements, especially for those which are out of sight."

Money judiciously expended in underdraining is not buried out of sight. Cut an underdrain through that field, and the wheat next year for a short distance on each side of it, shall be double what it is on the other portions of the field. No, sir, money buried in underdrains is not out of sight. Every dollar next harvest shall come again rejoicing, bringing his sheaves with him. But, then, supposing the farm will not sell for enough more to pay the cost of draining, what do you want to sell for? This desire to sell does more to retard improvements in American Agriculture, than everything else put together. The lack of capital is a great drawback, but it is nothing compared with this restlessness which seems indigenous to a new country. This love of change will doubtless work its own cure, and in the meantime we will guarantee that in ninety nine cases out of a hundred, money judiciously expended in underdraining a good farm in the older settled States, will pay a higher interest than that invested in any other way. In addition to this you have the pleasure of seeing your farm gradually improve under your hands, and the consciousness that you are adding to the wealth and stability of the country. Every one who has had experience in underdraining, will bear us witness that it is of all farm labors the most fascinating, and if these few trite remarks shall induce any one to lay only a few rods of underdrains on his farm, our object will be attained, for we are quite satisfied that he will not stop, so long as there is a wet undrained acre on the farm.

Character of New American Grapes.

"Myself and many others here are desirous of obtaining your opinion of the following three grapes, viz. Charter Oak, Concord, and Diana.

"1. How hardy are they, and will they withstand our northern climate without protection in winter? 2. What are their several times of ripening? 3. What is their quality as table grapes, as compared with the Isabella? 4. What are their size and productiveness, and which is the most productive? 5. Which on the whole is preferable to cultivate as far north as Brandon? Where can they be obtained and at what price?" R. V. Marsh. *Brandon, Vt.*

All the grapes are hardy, and will withstand ordinary winters at Brandon without protection. The Charter Oak, although large, is nearly worthless in quality, and we shall therefore confine our remarks to the two others. The Diana ripens ten days or two weeks before the Isabella, and with good cultivation will doubtless succeed well there. The Concord, so far as we can learn, is quite as early, and even earlier. The Diana is small, the bunches small, the vine productive, but not so much so as the Isabella. It has a sweet, very agreeable, and delicate flavor, and is nearly free from the pulp which distinguishes most American varieties. The Concord is a very large and exceedingly showy grape, in large bunches, is quite hardy, and is said to be exceedingly productive. Its quality is good, but inferior to the Isabella. It will probably prove a valuable sort for Vermont, especially on account of its early ripening; and its fine appearance and productiveness commend it as a market sort, or for home use to those who are not very fastidious as to flavor. Those who are more particular, will select the Diana; but most cultivators will on the whole prefer the Concord. Both may be obtained of Hovey & Co., of Boston, and of all other principal nurserymen at the north. The price is about two or three dollars for the Concord, and one dollar for the Diana.

Supporting Dwarf Pear Trees.

"I have a young bearing orchard of dwarf pears—the trees have given me much trouble this year by bending over under the load of fruit with the force of the wind, apparently for want of strong roots—what is the proper remedy?" W.

This is a difficulty not unfrequently met with in the cultivation of the dwarf pear. They will often stand erect in ordinary seasons, but unusual rains soften the the ground, and strong winds sometimes give them an inclination towards the ground. The stem by swaying to and fro, forms a large hole in the soil which increases the difficulty Various remedies have been proposed. Some have dug them up and set them deeper, but we cannot recommend this course,—as deep planting except in very deep and highly manured soils, is apt to retard growth; and besides it does not always prevent the hole occasioned by the swaying of the stem. If the tree is small, a thick piece of stout turf, placed firmly round the stem will answer the purpose. In other cases, staking may be resorted to. But in trees of much size, we should prefer placing a leather strap or a straw band around the stem about two thirds of the way to the top, securing a wire to this, and the other end of the wire to a small peg driven obliquely into the ground with the top inclining *from* the tree. This wire forms a strong brace. If the wind prevails in one direction only, a single wire *towards* it may be enough; in other cases two or three wires may be useful.

Time for Transplanting.

When is the most proper time to set out fruit trees, blackberries, strawberries, and ornamental trees? A. F. R. *New Hartford, One. Co., N. Y.*

All *hardy* fruit trees may be advantageously set out in autumn from any time from the cessation of growth, till the ground freezes. Those partly tender, such as the peach, do best in most cases, if transplanted in spring. Blackberries may be set out at either period. Strawberries succeed best by spring transplanting, and if well and early done, will often bear a moderate crop the same year. If not done in spring, the next best season is just at the close of bearing, while they are in a partially dormant state from exhaustion, and before the commencement of the second growth.

The same rule required for fruit trees, is also applicable to ornamental, namely, that such as are *hardy* may be removed at either season, and tender ones only in spring. Where there is any question as to their hardiness, it would be safest to defer the operation till the latter period, as all trees, by the mutilation which they must in some degree receive, are rendered more susceptible to the cold, and liable to become injured unless of the hardiest nature. With these exceptions autumn transplanting has a decided advantage, the soil becoming well settled among the roots of the trees and they have nothing to do in spring but to start and grow, without the check which they might receive if torn from the ground at this period.

It should not be forgotten, however, that successful growth depends incomparably more on the *after culture* which the trees receive, than on the time of transplanting, important indeed as this may be.

Cure for Warts on Animals.

Messrs. Editors—In answer to inquiry of T. N. Smith of Quebec, for a cure for warts on horses. Corrosive sublimate and red precipitate, powdered and mixed, equal parts, will cure the worst wart in the world on horses or cattle. If the wart is large and loose, tie a fine strong cord around it close to the skin. In a short time the wart will come off. Then apply the powder until the wart is eaten down below the skin; then wash off, and rub on a little sweet oil, and it will soon heal over. If the wart is dry, scratch with a pin or point of a knife until it bleeds; then rub on the powder. It will make a dry scab; pick off the scab and put on the powder again, until it is all eaten off. I have used this in hundreds of cases, and never failed of a cure. Asa Bartholomew, Jr. *Bristol, Ct.*

Messrs. Editors—I see that a great many inquiries are made in the Cultivator, in regard to a method of cure of warts on animals. For their benefit, I will state what has proved in my hands an effectual and an easy remedy, both for man and beast.

R. Muriated Tincture of Iron one part,
Muriatic Acid two parts.

Mix them together, and apply by means of a camel's hair pencil directly to the warts. This to be done twice daily. The warts will soon crumble away leaving the parts sound and smooth; sometimes it may be necessary to cut large warts on the feet of horses before its application.

This has invariably proved successful in my hands. Josiah B. Gale. *Salisbury, Mass.*

Market Pears.

The two most highly renowned pears for market, are the Bartlett and Virgalieu (or Doyenné) Fine Bartletts were bought at about eight or nine dollars per barrel the past season, in the eastern cities; and single specimens are often sold for twelve and a half cents each —sometimes more than tripple this amount. This sort possesses, eminently, a very desirable quality for marketing, namely, that of ripening well and assuming all its delicious flavor, if picked a fortnight before full maturity, and even if not quite fully grown. They may thus be sent long distances by railroad without inconvenience or detriment; and if kept excluded from the light, will mature with a handsome and brilliant blush, of which the same specimens would be destitute if ripened in the light. The productiveness of the Bartlett and its early bearing, also strongly recommend it. We have raised about a peck from a tree, set out the year before, when an inch in diameter. When the tree becomes large its bearing qualities are not lessened. We never saw heavier crops of any pear, than those the present season on the old trees standing on the clay grounds of Lewis F. Allen, of Black Rock,—the large specimens nearly touching each other, on the branches, bending, almost like weeping willows, under their loads

But the Bartlett has some drawbacks. It is unusually liable to the fire-blight; and the fruit matures during the continuance of the peach season, and few would pay a dollar per peck for the pears, when they can procure the most delicious peaches for a dollar per bushel.

In this respect the Virgalieu has decidedly the advantage of the Bartlett. It is much less liable to blight, and its period of maturity is long after the quickly-perishable fruits have gone. Its quality is unsurpassed for most palates; and its wide-spread reputation renders it exceedingly saleable.* These qualities have placed it far above any other autumn variety throughout western New-York and in many other places, although in most localities along the seaboard it is worthless from cracking. We should object on this account to recommending its exclusive or even very extensive cultivation, for if once fine at Boston and now deteriorated, there is a possibility that the same result may take place elsewhere. Even as far west as Cayuga county, the scab and cracking are becoming quite common, and it is not unknown in Ohio.

It becomes desirable, therefore, for those who would have more than one leg to their stools, to look to other varieties There are very few sorts that ripen before peaches—but these few may be worthy of attention, as pears will keep longer after picking and bear longer carriage than some other perishable fruits. Unfortunately there are very few sorts that are early enough to come in decidedly in advance of peaches, and among these few, the summer Doyenné (Doyenné d' eté) and Madeleine are undoubtedly the best *very* early sorts. The Giffard, Osband, and Bloodgood, verge very closely on early peaches.

The late autumn pears are so far superior in quality to those which may be termed strictly the *harvest* varieties, that *they* must be mainly looked to for profitable market culture. Besides the Virgalieu, the following give great promise,—and although well known to pomologists have not as yet been extensively produced from orchards.

Louise Bonne of Jersey †—Well known as a large, very handsome, early bearing, and exceedingly productive variety, especially when grown on the quince, on which it flourishes with great vigor.

Buffum—also well known for its vigorous growth and great productiveness, succeeding on both pear and quince, but always to be preferred on the former for orcharding. It is of only medium size, but possesses an excellent flavor—and will be always valued for the facility with which a given quantity of the fruit may be raised.

Flemish Beauty—This admirable pear has several excellent qualities. It is large, handsome in form, fine, buttery and melting in texture, and delicious in flavor. The tree is a strong, vigorous and handsome grower, and uniformly productive of fair fruit. Its only objection is a tendency to drop too easily from the tree when nearly or about ripe, which we think may be remedied effectually by gathering before maturity. Mostly fails on quince.

Howell—A new Connecticut variety that has acquired in a very few years a high reputation—being rather large in size, fair and handsome, bearing early and proving exceedingly productive. In flavor it is not equal to the Buffum and Flemish Beauty, but is, taken altogether, a most desirable sort. These four varieties ripen nearly at the same time, or about the close of the peach season.

The *Beurre d'Anjou*, is rather later, the tree a fine even bearer of rather large size, with a fine grained, buttery and melting texture, and a high, rich, and excellent flavor.

The *Onondaga* or Swan's Orange, is a very large and showy fruit, and although of only second-rate quality, it is valuable for its uniform productiveness, early bearing, and strong, healthy growth. Best on pear stocks

LATE AUTUMN AND WINTER VARIETIES.

Beurre Clairgeau. This is a newly introduced foreign variety, and its large size, beautiful appearance, good quality, productiveness, and late-autumn ripening, have rendered it a decided favorite among fruit raisers. Should its high promise continue, it may yet become extensively cultivated for market; a barrel of the finest rosy-cheeked specimens, on the approach of winter, would certainly command almost any price within the range of the market scale. Succeeds on both pear and quince.

Beurre Diel, an older and well known sort, is a large, rich, and fine pear, the tree growing vigorously, and yielding good crops. It succeeds finely, usually the best on quince.

Beurre d'Aremberg, long cultivated and well known, produces abundantly, and ripens near the close of autumn. For those who like a high, vinous flavor, it probably has no equal for its season; it is hardly showy enough to command the market to the best advantage. It should be cultivated on pear roots, with a rich soil.

Glout Morceau, ripening about the same time as the Aremberg, is a sweeter pear; succeeds admirably on the quince, but does not produce abundantly till several years of age.

Vicar of Winkfield, is scarcely equalled for its productiveness, the fruit being large and always fair. It continues to ripen for several weeks in succession. Unfortunately its quality is only second rate, but much depends on skill in ripening; for while the Aremberg will mature with almost no care in a common cellar, the Winkfield must be brought into a warm room just at the right time, or when maturity approaches, to complete the process.

Lawrence. With the exception of the Virgalieu, perhaps no pear is so well adapted for the market; it is hardly equal to the Virgalieu in quality, but coming a month or two later, gives it a high value. It is full medium in size, fair in appearance, and the tree an abundant bearer on pear roots. It ripens late in autumn, and often on as late as mid-winter. No orchardist need fear to set out plenty of the Lawrence.

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* A fruit dealer sent several barrels of this pear to New-York city—a part labelled as Virgalieu, and the rest as White Doyenne. The "Virgalieus" sold for about double the amount obtained for the "Doyennes!!"

† This long name ought to be shortened to "Jersey Louise." (There is another "Louise Bonne) Some pomologists persist in spelling it full in French, "Louise Bonne de Jersey," in order to avoid a mixture of English and French, but fail in the attempt, for they never give it a pure French pronunciation.

Prince's St. Germain, is a medium sized fruit, of fine quality, the tree hardy, thrifty, and productive—it is later than the Lawrence, and well worthy of market culture

Easter Beurre. This pear, *when in perfection*, is unequalled by any winter pear. It keeps into spring. Most cultivators think it decidedly best on quince roots. It needs rich and good cultivation, in common with many other pears, to bring its qualities to full perfection. A fully grown and well ripened specimen is as much better than a small imperfectly grown and poorly ripened one, as an early York peach is better than a basswood chip.

The *Doyenné d'hiver*, is a new sort, nearly or quite as long a keeper as the Easter Beurre, rather smaller in size, fair and handsome, and of excellent quality. The tree is vigorous and productive. Of course it it needs further trial, before extensive planting.

Besides the varieties we have named, there are several others among the newer sorts that may yet prove valuable for orcharding, among which the *Sheldon*, *Nouveau Poiteau*, *Beurré Sterkman*, *Zephirin Gregoire*, *Sieulle*, and others, are worthy of attention *Winter Nelis*, well known as the highest flavored early winter pear, is too small and not sufficiently showy for market. *Beurre d'Amanlis* is an exceedingly productive and very strong-growing sort on both pear and quince, with large fruit, ripening at mid-autumn, but like the Onondaga, Winkfield, and others, is only second-rate in quality.

On the whole, if we were about planting extensively for market, with a few sorts only, we should select BARTLETT, VIRGALIEU, LOUISE BONNE JERSEY, and FLEMISH BEAUTY, among autumn sorts; and LAWRENCE and EASTER BEURRE, among winter varieties. As long as mankind have such an appetite for good fruit, which they appear to have possessed for several thousand years, we do not fear but that all excellent fruit that is raised will sell well; and the more delicious sorts will always command great respect in market. Among winter and spring pears, especially, we should like to see an attempt made to produce a surplus;—while at present not one man in ten thousand has even seen a single barrel of good well ripened pears at mid-winter or in spring, and all tho trees that are now growing would come no nearer to supplying our myriads of population, than the cataract of Niagara could be fed by emptying water from an egg shell.

The French or Spanish Chestnut.

I notice in your column of inquiries, that information is requested respecting the Spanish chestnut and its adaptation to our latitude. I will state that we have it growing on our farm, and producing good fruit. The young trees, nuts, or grafts on the native tree, should at first be planted under a shelter, say the south side of a board fence or out-building, or in a hollow or southern exposure. They need this care until the tree attains to about a foot in circumference, when they seem to thrive without further care. I have seen one growing on the south side of Long Island, as large as the common forest chestnut, and bearing abundant crops of perfect fruit.

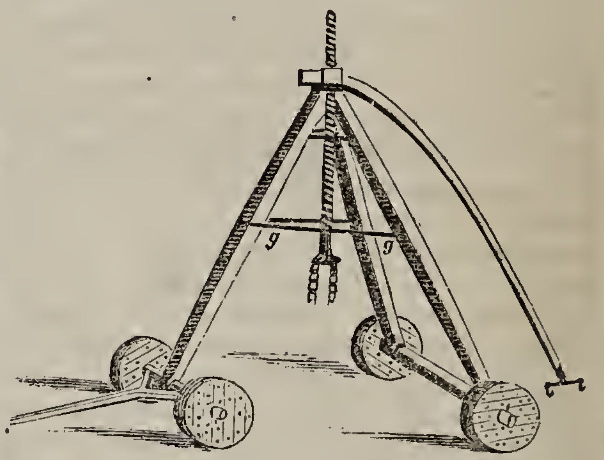
The trees we have, were raised from nuts sent directly from France. I should think it would be a better practice to plant the nuts raised here. THOS. B. ARDEN. *Beverly, on the Hudson.*

On this subject, another correspondent, J. W. L., Kingwood, N. J., writes as follows:

I have seen the large Spanish chestnut growing in Bucks county, Pa., grafted upon the common chestnut, and it appeared to do well, beginning to bear when quite young, bearing very full, and maturing properly. I saw a tree not over an inch in diameter, with several fine burrs upon it, three years after grafting. I apprehend they ought to be grafted quite early in the spring, to insure success.

Screw Stump Machine.

I send you the drawing of the stump machine as desired. The screw is of wrought iron, 10 feet long, and 3 inches in diameter, with threads three-fourths of an inch apart, square cut. The frame consists of three posts as seen in the figure, 7 or 8 inches square at the bottom, and 10 or 11 in the middle, joined together at the top, and secured by a strong band of tire iron. Each post is hollowed at the top before it is put together, to give place for the screw. The bar posts are 13½ feet apart at the foot, and 14 feet long; the forward post is 14½ feet long and stands 14½ feet from the others at the bottom. It is fastened to the forward axle by a strong bolt firmly fastened into the post, and setting into a hole in the axle. The forward axle is usually 3 or 4 feet between the shoulders; the hind one fourteen feet between tho shoulders; the braces, *g. g.*, are fastened to the back posts, and pass around the front one, to prevent sliding out at the bottom. The wheels are made of 4 inch white oak plank, doubled, and firmly pinned together, making a wheel 8 inches wide. The nut is movable and fastened to the lever by two straps of iron. The screws are cut left hand.



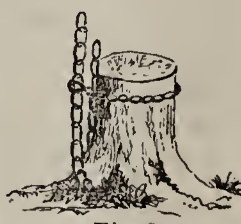


Fig. 2.

Figure. 2 represents the manner of fastening to the stump. First dig around one of the main roots, pass the chain under it, and pass a strong chain loosely around the top of the stump to prevent the stump from tipping too much while pulling. The large chain is usually of 1½ inch iron; the small one of ¾ iron.

A yoke of oxen and one horse are the team necessary for working one of these machines. With the oxen they are easily moved from one stump to another. It is in every respect superior to any other machine for tho purpose. Once made, if made as it should be, it needs no repairs of any amount, and will pull the largest pine stumps with great facility. I know of no place where thoy are made to sell; all I have ever seen were made by those who used them. The screws may bo obtained at almost any large iron factory. G. F. LUCAS. *Castile, N. Y.*

Model and Experimental Farms.

The friends of agricultural science have at length succeeded, after great and persevering efforts, in establishing at least two Model and Experimental Farms in this country—one at Westboro, Mass., the other at Petersburg, Va. American farmers are beginning to move in this matter, and we shall, doubtless, soon see similar establishments in every state. It may not be amiss, therefore, to examine briefly a few of the leading objects of such institutions.

First, are they to be "Model," or "Experimental" farms? One or the other they must be; they cannot be both.

A Model Farm is one where, *so far as is known*, the best and most profitable practices are adopted; the best system of rotation pursued; the best stock kept; the best implements used; the best manures applied; and where nothing is done but what affords a reasonable prospect of profit. In short, a Model Farm is one which is managed so as to produce the greatest amount of produce, now and henceforth, at the least cost. Such farms we have already. There is not a state in the Union that does not contain several. The management of these Model Farms varies with the soil, the climate, the price of produce, and other circumstances. On one, wheat is the prominent object; on another, cheese or butter; on another, beef, mutton, pork or wool; on another, corn, or it may be even hops, tobacco, or teazels; that crop or crops which, under the circumstances, will *pay best*, is grown.

We would not be understood as advocating such an exclusive system of farming—we believe in "mixed husbandry"—but our systems of rotation, cropping, manuring, and general farm management, must vary according to circumstances. The same practices cannot be best on all soils, and in all situations. In short, no farm can be a model for all the agriculturists of the state.

An Experimental Farm, on the other hand, is a very different institution. It is assumed that we are ignorant of what constitutes the *best* system of tillage, of rotation, of manuring, of general farm management, and the object is to discover it. To do this, we must experiment—we must *try* various systems, modes of tillage, manures, &c. Some of these *may* be better than those now used—many of them will be worse. These trials, too, must be made with great care and accuracy; they must be systematically carried on for several years, or we shall draw from them hasty and erroneous conclusions. Such experiments cause serious interruptions to the general business of the farm, besides involving much extra expense and labor. The Experimental Farm, therefore, cannot be a profitable one. The experiments at Rothamsted, cost Mr. Lawes $15,000 per annum. Boussingault's experiments in France could only have been carried out by a millionaire; even the small experiment which Liebig made on his ten acre farm, cost $3,200.

We are aware that many think the profits of that portion of a farm managed in the ordinary way would be sufficient to balance the loss on the portion devoted to experiments. They may: but if they are, the experiments, involving so little care, labor, and expense, cannot be of much value. The Superintendent of the Experimental Farm in Virginia, in his recent Report, alludes to this subject, and says:

> I will only again express to your board, my increased and confirmed conviction, that your Experimental Farm will ere long become self-sustaining, if not remunerating, in its results, notwithstanding the adverse and unfavorable opinions of many.

The experiments which have been made on this farm are comparatively valueless, and in the above extract the cause is clearly revealed. Last year, not a single experiment was tried that even aimed to develope any new principle. They were experiments with this, that, or the other guano, or with superphosphate of lime of different manufacturers, the value of which an analysis would tell as well as the most careful experiment. This year we had hoped something would be done to ascertain the special manurial requirements of our most important crops. But this would involve considerable expense, so some such experiments as the following have been instituted. In his last Report the Superintendent says:

> On the 11th, two acres of pea fallow, were sown, at the rate of 1¼ bushels of early purple straw wheat per acre, and on the 12th and 13th, eight acres of corn land were sown at the same rate per acre, and with the same variety of wheat. 175 lbs. of Peruvian guano per acre were applied to all. On the pea fallow the guano was well harrowed in, and on the corn land plowed under.

Now it is very desirable to ascertain whether wheat does best after peas or after corn; and it is also very desirable to learn whether guano is best harrowed in or plowed under. But the above experiments will not satisfy us on either point. If more wheat is obtained on the pea than on the corn ground, we shall not know whether to attribute it to the peas, or to the guano being harrowed in instead of plowed under. And if more wheat is obtained from the guano plowed under than from that harrowed in, we shall be equally at a loss whether to ascribe it to the method of applying the guano, or to the corn being a better crop to precede wheat than peas.

In the same Report the Superintendent says:

> Difference of soil, climate and natural productions, must ever demand some difference in the practice of agriculture; but the true scientific principles must be universal, and ought to be understood by the cultivator of the soil, whether he subsists on the varied and abundant products of the tropics, or the harsh cortical loaf of the Laplander. Nor can any fitter mode be obtained for the accomplishment of so desirable an end, other than the organization of such institutions as yours.

This is well said, and shows that the Superintendent has a correct idea of the true object of agricultural experiments—the development of "true scientific principles" of universal application. But a gentleman of his intelligence must know that nothing has yet been done on the farm for the accomplishment of this object, and that nothing can be done if the farm must be "remunerative."

On the State Farm of Massachusetts the same state of things exists. So far as the results have been published, no experiments have been made to tell us which of the various constituents of plants is required in the soil in greatest proportion by the corn or any other crop. Is it of paramount importance to discover whether De Burgs' No. 1, or Mapes' "Improved" superphosphate of lime, is best? If it is, an analysis will tell you to a certainty. It would, however, be interesting to learn whether a pure superphosphate of lime is a good manure for corn, or whether ammonia has a marked effect, or whether the two together in certain proportions is best; whether these manures, or potash, soda, &c., are best applied to corn or potatoes, or beans, &c. &c. The manures used contained more or less of *all* these elements of plants, and it is not possible to tell to which the increase obtained is owing. The experiment with Peruvian guano and superphosphate of lime might have afforded us a little uncertain light on one point, had it been properly made; but the guano was placed with the seed, and of course burnt it up. Still we see this experiment circulated by the manufacturers of superphosphate of lime as proof that superphosphate is a better manure for corn than Peruvian guano.

If we succeed in calling intelligent attention to this important subject, our object will have been accomplished.

Profits of Poultry—Houses, Yards, &c.

L. Tucker--In reading the appendix to the American Poultry Yard, by Browne, one cannot question, by the statement there made, the amount of eggs and cost of keeping, that the raising and keeping of poultry, when properly managed, must be profitable; but my experience convinces me that, although the business can be done on a small scale to a handsome per centage of profit, yet when enlarged the per centage of profit diminishes in a direct ratio, until it becomes a losing business. I had a poultry house built, with a large yard attached, fenced in such a manner as to restrain its inmates and keep out all intruders, having the advantage of sun and shade, with roosts under cover and also in the open air, and kept at a proper temperature in the winter by a glass front with a south and east exposure, and having the north well protected from the wind, and in summer by plenty of air and shade, keeping the poultry well supplied with fresh clean water, ashes, lime, bone dust, shells, corn, buckwheat, rye, oats, warm boiled potatoes, and corn meal in winter, clean straw, and occasionally with a bullock's head with the raw meat attached, and also with very inviting nest places for them to deposit their eggs in. My stock consisted of Cochin China, Shanghai, Dorking, Bolton Grey, and the common barn-yard poultry.

Although the proposition may in general be true, that what can be done on a small scale to a profit, may be done on a larger, with the same proportion of profit or capital invested, yet there is not the least difficulty in making a flock of poultry averaging about forty in number, pay a handsome per centage of profit, yet a person must be possessed of great fowl gumption to make a flock of several hundred pay him profit sufficient to remunerate him and induce him to continue long in the business.

Finding my old poultry establishment on too large a scale for profit, I began anew my poultry arrangements with an eye to the profit, by first reducing the number, then turning to page 69 of the Annual Register and Cultivator Almanac for 1855, I built me a poultry house after the model and plan there given, digging a cellar under it, and dividing it at the sills into two rooms with a floor under one, the roosting room, making the cellar and the laying, feeding, &c. room all in one—the out-door passage and the passage to roosting room from this room. The cellar makes more room, is cooler in summer and warmer in winter, and the floor under the roosting room keeps the droppings from the ground, which should always be well covered with bone-dust and ashes or shell lime, made convenient to wallow in.

The roosts should be placed one above another, yet in such a manner that one set of fowls can not perch directly over others, like ladders or steps, that they can ascend or descend from one perch to another.

With me, a mixture of the large China with the Bolton Grey and common barn-yard, do the best for profit. To open the poultry yard occassionally, and give the fowls a ramble, I find beneficial, and that they consume less feed and keep in better condition by keeping always within their reach a constant supply of various kinds of food, and that chickens of the larger breeds, when properly fed, are as fat and tender as the smaller breeds. I have raised the pure white fowls—the pure white crested ducks—also the pure white turkeys, and the pure white geese, and have found them to possess more delicate constitutions while young, and to require more care and attention to rear them. S. *Plymouth, Conn.*

On the Preservation of Onions through the Winter.

Eds. Co. Gent.—In answer to the inquiry of W. H., in your last, let me say, I have been in the habit of keeping onions for market until spring, in the following manner: In a large dry cellar, capable of defence from frost, I built rough shelves from breast high to the top, say three or four, about four feet wide, and one apart. The hemlock boards, forming them, were laid an inch apart, so that the air could circulate a little, and a narrow board was set up inside the uprights, that held up the shelves to keep the onions on. On these shelves my onions, after having been stored in some out-house during the autumn, were put, about the 10th of Nov., i. e., when they were in danger from frost. During the winter, they were occasionally stirred up with the hand or a rake. Some of them remained unsold until the middle of April. As I kept squashes, &c., in the same cellar, they were not suffered to freeze. I know, however, that onions will bear considerable freezing without great injury.

I once, when onions were very unsaleable, buried one hundred bushels between alternate layers of hay upon a hay mow, where they froze hard. About one half were moderately marketable in the spring. At the same time I filled a barrel with dry sand and onions, and exposed them to frost. In the spring they were worthless.

Onions should be well ripened on the ground where they grew, before being stored any where. The scullions also should be very carefully excluded, as they sprout more readily than well ripened bulbs.

White onions, i. e., the variety called the Portugal onions, are much more tender to frost, and other injury from winter, than either the red, yellow or brown onions. C. E. Goodrich. *Utica, N. Y.*

Nursery Trees in Orchards.

I have about 2 acres of ground, on which I intend to put nursery trees (or grafts,) next spring, and on which I have calculated some day, to set an orchard; now could I set my orchard trees in the spring, say 40 or 50 feet apart, and put the rest of the ground between the rows to nursery trees, and make them both do well. D. Robinson. *Crown Point, Ind.*

There is no difficulty in pursuing the course proposed by our correspondent. The nursery trees will do better, and the young orchard trees will be more likely to flourish, if the former are not placed within some feet of the latter, in the same row. We have pursued this course with great success,—the constant culture given to the nursery rows, proving of great benefit to the young orchard, so that the fifth year, when the last of the nursery trees were removed, several of the orchard trees have borne from one bushel to one and a half of fruit.

Artificial Guano from Fish.

In England and France attention has recently been turned to the manufacture of an artificial guano directly from fishes, after extracting the 2 or 3 per cent. of oil which they contain. The remaining cooked fish, after heavy pressure, is ground and dried in an oven, then packed up to be sold for manure, which has proved more valuable than guano.

In this country, a company has been formed in Rhode Island for the manufacture of fish manure, and the fat menhaden of Providence river and Long Island sound will be used to produce both oil and fish-cake, and the latter being duly prepared so as to render it inodorous, will be sent into the agricultural market as an artificial guano. I have no doubt of the high fertilizing effects which this manure is capable of producing, nor of the economy of the manufacture proposed. There are doubtless many harbors on our sea coast where adequate supplies of fish may be obtained for the manufacture of guano, superior to that imported from the islands on the coast of Peru, and it is to be hoped that these home resources may be rendered available to the farmer as well as to the fisherman.

Fish manures contain phosphates of lime, magnesia, potash, soda, and ammonia, and all the nitrogen-producing materials required for the production of ammonia in the soil as needed, besides which the carbonaceous matters of their fibrine and cellular tissues produce a rich mould charged with nitrogenous matters. In case the fish-cake is saturated with sulphuric acid, the ammonia would combine to form sulphate of ammonia, which is known to be a valuable fertilizer. If more sulphuric acid be present than is required to form sulphate of ammonia, it will act on the bones of the fishes to form super-phosphate of lime, which is also a well-known fertilizer in high repute.

Since artificial guano, made directly from fishes, will contain a larger amount of nitrogenous or ammonia-producing matters than any natural guano known, it is obvious that it will require very large dilution or admixture with peat, swamp muck, vegetable mould, or common earth, before it is mingled with the soil, since it would prove too powerful an agent to come directly in contact with the seeds; for it would act upon them more strongly than even the best guano from Peru.

We copy the above from an article on Fertilizers, by Dr. Charles T. Jackson of Boston, Mass., in the Patent Office Report for 1854, page 107.

It is said that millions of tons of fish can be obtained at a trifling cost on several points of our sea coast. There can be no question that they are, in their fresh state, a very active manure; and it is equally certain that, could the large proportion of water which they contain be removed, the dry matter reduced to a powder, would be a most powerful fertilizer. The only question is, can it be done so as to afford fertilizing elements at as cheap or cheaper rate than we can now obtain them in other manures. Or more definitely, can we obtain in this dried fish compound, ammonia and phosphoric acid as cheap or cheaper than we now obtain them in Peruvian guano? Certainly no other mode of manufacturing artificial manure offers such good prospects of success as the one under consideration. On this account we are very desirous that all those who engage in its manufacture, or write on the subject, may lay aside the clap-trap and exaggerated statements with which the venders of "Improved," and "Ammoniated," and "No. 1," and "Nitrogenized" superphosphate of lime, of "Poudrette," "Ta-Feu," "Fertilizing Salts," "Prepared Manure," &c., have seen fit to refresh the reading agricultural public.

Of course Dr. Jackson would not knowingly give an exaggerated account of the value of dried fish, or of any other manure, but his remarks, as quoted above, embody one or two ideas calculated, we fear, to lead both the manufacturers and the farmers to erroneous conclusions.

Is it desirable to use sulphuric acid in the manufacture? Dr. Jackson says:

"In case the fish-cake is saturated with sulphuric acid, the ammonia would combine to form sulphate of ammonia, which is known to be a valuable fertilizer. If more sulphuric acid be present than is required to form sulphate of ammonia, it will act on the bones of the fishes to form superphosphate of lime, which is also a well known fertilizer in high repute."

From this, we should conclude that it is very desirable to emply sulphuric acid. But we think its advantages have been over-estimated. It is true that sulphuric acid would combine with the ammonia already formed in the compound at the time the acid was added. This would be but a small quantity; and if the fish-manure is saturated with sulphuric acid, its antiseptic properties will prevent the formation of any more ammonia from the protein compounds of the fish. The addition of sulphuric acid, too, would form a deliquescent mass which would be difficult to transport, besides increasing the quantity of water. On the whole, then, it is questionable whether the sulphuric acid would so greatly improve the fish manure as the remarks of Dr. Jackson would lead us to suppose.

Again, Dr. J. says:

"Artificial guano, made directly from fishes, will contain a larger amount of nitrogenous or ammonia-producing matters, than any natural guano known."

The value of Peruvian guano is estimated by the ammonia it contains, and this fish manure will be subjected to the same test. It is very important, therefore, that the quantity of ammonia it is capable of supplying be fairly stated. Let us see what we may expect. Natural guano is the excrements of birds, feeding on fish. It is in reality fish ground to a fine powder, *with the carbonaceous matter burnt out of them.* The excrements of the birds contain the nitrogen and phosphates of the fish, while the carbon has been used to supply animal heat. It is evident, therefore, that the *proportion* of nitrogen and phosphates in the excrements will be greater than in the fish. In the manufacture of artificial guano from fish, we remove as much of the carbonaceous matter as possible, but we have no means of taking out as much of the carbon as is removed by the birds. Artificial guano, therefore, will contain more carbon, and consequently less nitrogen, than a natural guano which has suffered no loss of ammonia by fermentation or leaching. So far, therefore, from artificial guano containing "a *larger* amount of nitrogenous or ammonia-producing matters than *any natural guano known*," it is quite certain that it cannot contain as much.

We make these remarks, because we believe *the truth*, the *whole* truth, will benefit a good thing—such as we know genuine artificial fish-manure to be—more than any exaggerated statement of its merits. We repeat, fish-manure is a good article; it is *almost as good* as the best Peruvian guano, and we trust it can be manufactured so cheap as to drive the foreign guano from the market. We are now paying Peru some ten millions of dollars per annum for guano, and that man who can show us how to obtain the same elements at as cheap a rate in our own country, will deserve the lasting gratitude of every American. To be more definite, he who can furnish us ammonia of domestic manufacture in an available and concentrated form, for twelve cents per lb., will be a public benefactor.

☞ Our readers are referred to Mr. Garrett's advertisement of his seedling Potatoes, noticed by us last week. He commends it highly, and we do not hesitate to recommend it, so far as we can judge from the samples tried by us, and his own representations, to favorable notice.

A Chapter upon Cabbage Culture.

I have just been gathering my cabbages, and the product is so satisfactory that I am induced to give the result to your readers, with some thoughts upon the culture and worth of this important, but neglected crop. I had but a small patch; about 8 square rods. The land was a light sandy loam, well manured with barnyard scrapings, and plowed 10 inches deep in the fall of 1854. Plowed again early in May. The seed, (York and Savoy variety,) was sown in a bed, and the plants set out in rows 2½ feet apart. The distance of the plants in the rows was 2 feet. The young cabbages suffered severely from worms and bugs. In some instances the plants had to be replaced three or four times The "*varmints*" could be taken only while *napping*, which was before sunrise. By persevering efforts the "critters" were "kilt off intirely," and the plants shot forward with wonderful rapidity. They were hoed frequently during the summer, as the ground was inclined to be weedy. I cannot well estimate the expense, not thinking during the process of culture of calculating the result. The cabbages, generally, were even and well headed. There were a few monarchs however. From a row four rods long, I selected two, each of which measured *four feet in diameter*. An immense quantity of leaves surrounded the hard heads, which were very compact. One of these weighed 17¼ lbs. The other 17 lbs Others in the same row weighed 16½, 15, 14, 13¾, 12½, down to 6 lbs. I think the whole row would average 10 lbs. From the weight of this row, I made a calculation, which I believe is a fair one, that on an acre the enormous quantity of 30 tons of green fodder, of superior quality, could be produced Could any one desire more ?

I have just been reading an interesting account of some experiments in cabbage culture, made by successful farmers in England and Ireland, nearly one hundred years ago. The experiments were carefully made, and the details of the process of culture very minutely described. They would be too long for your paper, and I will give you a short abstract of them.

Mr. John W. Baker, an intelligent and careful cultivator, in a report which he made to the Dublin Society in 1769, says, "I cultivated my cabbages on a piece of ground which had borne potatoes the previous year. It was manured with a compost of lime, earth and dung, perfectly incorporated. The plants grew upon ridges, in rows five feet apart, and were two feet from each other." Mr. Baker subsequently recommended a closer culture; the rows to be 3 to 4 feet apart, and the plants 12 to 24 inches distant, according to their respective sizes and luxuriance.

"By repeated plowings and horse-hoeings, the ground was in fine tilth, and fresh mould kept near the plants during the early period of their growth." This seems to have been the grand secret of success in all the experiments. I cannot forbear quoting the words of the eminent Tull, on the effect of good and deep hoeing: "The earth being made fine by good tillage, imbibes the dews, and when hoed deep, retains them; they penetrate deeper into the loose, open soil in the night, than the sun and air can exhale them during the day. The roots of the plants are thus refreshed, and the earth is kept cool in hot weather, which greatly promotes their health and growth; for heat and moisture are principal agents in vegetation; this appears agreeable to reason, and is confirmed by experience. It is an observation of great importance to agriculture. Farmers by good hoeing may keep their crops in health and vigor in dry, hot weather, when the unhoed crops are parched and stinted by it. It is important to notice that this good effect of hoeing, is in consequence of the earth being fine, loose and open. Hoeing of close, dry, hard earth, does not open and pulverize it at once, nor until it has been well broken, and exposed to the air and vicissitudes of the weather. The benefits of deep pulverization are very great."

Randal assures us, that in cultivating cabbages, much manure may be entirely dispensed with, by making the soil exceedingly fine Mr. Baker says "the horse-hoeing was so effectually destructive to the weeds that the expense of weeding was a mere trifle The product of an acre was 23 tons, 4 hundreds, 2 quarters, and 14 pounds; which was about 17 tons less than it would have been, could I have obtained the Large Dutch Cabbage"

Large crops were raised on land prepared in this way. It was plowed in November, again in April, and harrowed down; at the latter end of May it was thrown into five feet ridges at three bouts of the plow. The middle of June the land was manured by laying the manure upon every second ridge alternately and throwing it equally into the two contiguous furrows, by which means the plants stood over the manure as in a hot bed.

From information obtained by Mr. Young, some English farmers raised above 50 tons upon an acre.

On clays and strong loams,

	Tons.	
Mr. Turner raised	39	Average weight, 15 lbs. Distance, 2 feet by 4.
Mr. Crowe,	35	
Mr. Scroop,	37	
Earl of Darlington,	40	
Mr. Dixon,	48	

On deep, rich light loam:

	Tons.	
Mr. Yucker,	44	Average weight, 20 lbs. Distance, 2½ ft. by 4.
Mr. Middlemore,	54	

On inferior soils:

	Tons	
Mr. Lyster,	27	Av weight. 9½ and 7½ lbs. Distance, 18 in. by 4 feet, and 2 feet by 4.
Mr. Smelt,	18	
Mr. Scroop, Dalton,	24	

The variety was the large Scotch.

Mr. Baker again says, "it seems to be universally admitted that the cabbage answers all the purposes of maintaining and fattening horses, cattle and sheep. Horses eat them with surprising avidity. They are also very serviceable for hogs."

Randal, in his Semi-Virgilian Husbandry, with great assurance affirms "that oxen will grow very fat upon cabbages; that he has fed them to many cows for a long time together, without perceiving the least disagreeable taste either in the milk or butter; on the contrary, the milk was rather richer and sweeter; and that both oxen and cows are exceedingly fond of them. The same may be said of sheep, which improve in their flesh very fast, and grow surprisingly fat, yet has the mutton no disagreeable taste, so that there is perhaps no vegetable which will raise lean sheep of the largest breed sooner than cabbages." Another writer asserts, "that it has been fully proved cattle and sheep are completely fattened upon cabbages, and their flesh is as well tasted as when fed upon rich pastures. Cows fed upon them give a great deal of milk, and the butter made from it is excellent. It is a great recommendation to the culture of them, that they produce very large crops, from thirty to sixty tons upon an acre, when cultivated upon good land well manured and horsehoed. Add to this the nourishing quality of the crop, their coming into use in winter and early in spring, and the improvement of the land, which is remarkable, the succeeding crops of whatever kind extraordinary great."

From these experiments it is satisfactorily proved that cabbages are a very valuable and profitable crop. From no other product can such a quantity of green fodder be obtained in such form as to be preserved for fall, winter and spring use

Having opened the subject, I should be glad to hear from some of your correspondents, who have had experience in raising cabbages, of the best method of preserving them, and the best variety to be cultivated in this country. William A. White. *Lancaster.*

ENTOMOLOGY.

No. 6—Gaylord's Wheat-Caterpillar.

Mr. Tucker—Other engagements having engrossed my time for a few months past, I have been unable to examine and reply so punctually as was desirable to several letters of inquiry respecting injurious insects, which have been received from your patrons and correspondents. Being again at leisure, I proceed to fulfil this engagement.

W. R., writing from Cobourg, Canada West, under date of August 4th, says:

> I enclose in two quills, some insects that have made great havoc among my wheat this season, which I suppose to be the Wheat-fly or midge. What I wish to know, is, if those small orange-colored things in the quill marked I, are the same species as those in the quill marked II, as I find them both in the wheat. My own impression is, that the one is the *larva,* the other the *caterpillar,* which will by-and-by become the *fly;* but not having been able to satisfy myself on the matter, I take this method of consulting your superior judgment.

The insects in the first of the quills, were, as the writer supposes, the larvæ of the wheat-midge, which is so improperly called "the weevil" over a vast extent of our country. Those in the second quill, had all perished before they reached me, but their dried relicts plainly showed that they were quite a different insect from the others. In their present shrivelled state, these caterpillars are little over the tenth of an inch long, and appear to have had a soft, cylindrical body, which is turned upwards posteriorly, and tapers to a point. The head is somewhat flattened, smooth and polished, and of a tawny-yellow color, with a few fine bristles scattered over it and the body. The neck or second segment, is also polished on its upper side, and commencing on this segment, five dull white stripes extend the whole length of the body. One of these runs along the middle of the back, and is edged each side with blackish; another extends along each side of the back; and the other, which is broader, is placed low down upon each side. The back, between the three upper stripes, is dull brownish yellow or tawny; the sides are black between the broad lower stripe and that along each side of the back, and the under side of the body is dull pale yellow. There are six pairs of feet, situated upon segments 2, 3, 4, 7, 8 and 9. In the quill were numerous gray and blackish grains, the castings of the worms, held slightly together by fine, cobweb-like threads, which they had spun as they crawled about in the quill.

The description given above plainly indicates that these wheat-caterpillars from Canada, are the same which have long been known in western New-York and northern Pennsylvania, our first and principal accounts of which appeared in the year 1839, in the sixth volume of the Cultivator, consisting of a communication (page 21) from Mr. Nathaniel Sill, of Warren, Pa., and a more extended article (p. 43) from the late Willis Gaylord. Mr. Gaylord also gave a revised account of the same worms in his "Treatise on Insects," which is published in the Transactions of the State Agricultural Society, vol. III. p. 147. We learn from the last edition of Dr. Harris's Treatise, (p. 354,) that similar worms had been brought to him from the state of Maine and also from Connecticut, and that subsequently he had himself seen them in a wheat-field in the latter state. From the description which he gives of these New-England wheat-caterpillars, they would appear to be the same as those which I have described above, except that the number of their feet is stated to be sixteen, whereas, in the specimens before me, twelve feet are plainly perceptible, and I can discern no distinct traces of any beyond these, and this is also the number given by Mr. Gaylord. These worms must hence be regarded as widely different from those of New-England, although they are so closely alike in their stripes and colors.

It is much to be regretted that the perfect insect has never been reared from any of these wheat-caterpillars of our country, that we might know what they are more definitely. Mr. Gaylord says the worms of which he writes, move like an inch or span-worm, which we should not expect them to do with feet situated as they are in the specimens before me. If these specimens show the real structure of the caterpillars, it is evident that they belong to the small group of moths named *Platypteryx;* although all the larvæ of that group which are at present known have one pair of feet more than we find in these worms. This group is placed in the family Geometridæ, i. e. the span-worm moths, by Mr. Westwood in his Synopsis of the British genera; but more recently (in Humphrey's British Moths) he follows Mr. Stephens in elevating it to the rank of a distinct family, named Platypteridæ, i. e. the broad-winged moths.

According to Mr. Gaylord, these worms feed on the kernels of the wheat, both when it is in its milky state and after it has ripened. They grow to length of a half inch or more. When disturbed they let themselves down from the wheat-stalk by means of a fine thread which they spin. Some years they appear in great numbers, and perhaps not one of them can be found the next year; and they will sometimes be quite numerous in one wheat-field when an adjacent field will be exempt from them. Asa Fitch. *Salem, N. Y, (East Greenwich P. O.) Nov* 5, 1855.

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On the Cultivation of Broom-Corn, etc.

J. O. M., in the Country Gentlemen of November 1st, wishes to know something about the raising of broom-corn, etc. I have seen some cultivated in this neighborhood, and have made observations, and with your permission will give my opinion as to how I think it should be planted and cultivated.

First—When it should be planted. We begin planting in Kentucky, about the 15th of April generally, and can plant it even later than Indian corn, and make a pretty good crop. We think it late enough here to stop planting corn by 20th of May. But if I were to raise broom-corn as a market crop, I believe I would prefer planting the first of May, for, if planted sooner, it ripens too early.

Next—how to plant. Have good corn land, and break it up well and deep. Now lay it off with a small plow, having the rows 4 feet apart; then take the seed and drill them along the row as you would English Peas, or not quite so thick, and follow with a two horse harrow astride of the row, and the corn is planted.

How to cultivate. This should be done just like Indian corn, except in thinning, broom corn can be left about 4 times as thick as you dare leave other corn, and then make a better crop I believe than if left thinner.

The corn is generally ready for cutting by the first of September. This we do by first going along the row and breaking down the stalks, so as to get at the brush the more easily; then go along with a sharp knife and cut it off. Now it is ready to take home—spread tolerably thin on the barn floor, for if thrown in a heap while yet uncured, it will be apt to heat and spoil.

A cheap instrument for clearing off the seed can be made as follows: Nail a plank, about three-fourths of an inch thick and ten inches wide, to a stationary bench or something of the sort, letting it (the plank) run above the bench about a foot. Then take a saw and make teeth in the end of said plank like those of a comb, and we are ready for operations. Take three or four straws (as we call them) and draw them across the comb till they are clean, (pressing a little with one hand whilst you are drawing with the other,) making it ready for market or the broom maker. RICHARD YOUNG. *Springdale, Ky. Nov. 7th, 1855.*

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A Run through the Patent-Office Report—II.

The next portion or section of the Report recently issued, is devoted to a brief account of the

SEEDS AND CUTTINGS RECENTLY INTRODUCED INTO THE UNITED STATES.

Seeds and cuttings from foreign countries, to the extent of several hundred kinds, and in considerable quantities, have been procured, and have been placed in the hands of Members of Congress, and of the Secretaries of State and County Agricultural Societies, for distribution in their respective districts. Some information relative to the nature, origin, culture and preparation, of the principal of these is furnished by Mr. D. J. BROWNE. Of these we shall name the most promising and important.

Of *wheats*, fourteen different kinds are specified. The Turkish Flint Wheat has proved itself both hardy and prolific in the Middle States, and well deserving of more extended culture. The Algerian Flint Wheat has a remarkably large berry, and weighs 70 lbs. to a bushel. The Spanish Spring Wheat is said to be a beautiful variety, of unsurpassable whiteness, and likely to succeed well as a winter wheat at the South, and as a March or Spring variety at the North. The Saumar Spring Wheat, and the Early Noé Wheat, are both from the central or southerly part of France, and are reported as having the property of ripening some days before the common sorts, which, if they should succeed with us, would be a great point attained, as injury by fly or rust might be thereby prevented.

Of recently introduced *oats*, the common Black Oat from France, is most highly spoken of, as being very prolific, about a week earlier than the Potato oat, and as weighing 42 pounds to the bushel. The grain is large, well filled, and of a shining black color.

A dwarf variety of *corn*, called the Forty Days Maize, from the south of Spain, is spoken of as having ripened high up in the Alps in forty days after planting. The object of introducing this grain into the U. S., was on account of its quick growth, early maturity, and sweet flavor in the green state, as well as the delicacy of the bread made from its meal. It appears, also, to be well adapted to the high latitudes, where most other varieties of corn will not thrive, and likely to form a successful cross with the larger sorts, to which it may be found to impart, in some degree, its quality of early ripening, and perhaps also its sweet flavor.

Of *beans*, the Early Dwarf French Bean seems one of the most promising. It is said to be one of the most esteemed varieties in the neighborhood of Paris; very dwarfy and rapid in its growth. From its bushy and dwarfy habit, it will bear close planting, say from 2 to 2½ feet apart.

The White Lupine from the south of Spain, has been found, in Germany, to be one of those plants by which unfruitful, sandy soils, may be most speedily brought into a productive state. Its superiority for the purpose of enriching the soil depends upon its deep roots, and upon its large produce in leaves and stems. In the north of Germany it is said to yield, in 3½ to 4 months, 10 or 12 tons of green herbage. It is well adapted not only to enrich, but also to open stiff clays by its strong stems and roots. In a word, it is considered the best of green manures, and almost equal to farm-yard manure.

Of *beets*, the White Silesian Sugar Beet from Germany, is said to be particularly valuable for feeding to milch-cows.

Of *grasses*, and plants cultivated for fodder, quite a large number have been sent out from the Patent Office. Among these are the Moha de Hongrie, from France, an annual, good for forage, green or dry, very productive, and flourishing well on dry soils; Sainfoin, two varieties from France, both perennial; the Chilian Clover, or Alfalfa, from Chili, a perennial variety of Lucerne, which succeeds well in our Middle and Southern States; Yellow or Black Trefoil, considerably cultivated in France, one of its recommendations being its capacity of growing well in dry and inferior soils, and being valuable as an early sheep pasture; the Alsyke or Swedish Clover, the flowers of which resemble in shape those of the common white clover, but are larger, and of a rosy tint, of a sweet and agreeable odor, much relished by bees; Perennial Ray Grass, two varieties from England, the Italian and the Improved, of which it is to be feared that, notwithstanding their many very desirable qualities, they may not succeed in this country on account of our more severe summer drouths and winter frosts; the Meadow Fescue, an excellent perennial grass, preferred by sheep to all other herbage, where it exists.

From any of our readers who have received seeds of any of the plants which have been named, we should be happy to have some account of the results of their trials in cultivating them. We should be interested also in accounts of trials made with the seeds of Sweet Scented Vernal Grass, Spurry, and Mate or Paraguay Tea. The first of these is said to be especially adapted for lawns and ornamental grounds, from its dwarfy growth and close sward. Spurry is much cultivated in France and Germany as a winter pasture, and said by Thaer to make superior milk and butter, as well as mutton. Sown here on wheat stubble, &c., it would make good fall feed and also early spring pasture, which might be plowed under with advantage for spring crops. It will grow well even on poor, sandy, worn-out soils.

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Culture of the Cranberry.

MR. TUCKER—In reading the Cultivator, I observe that some of your subscribers wish information, in relation to the cultivation of the low bush cranberry. I have cultivated them with good success in my garden for several years. They produce more and better fruit on dry land than in the marshes.

The spring is the best time to transplant them. The ground should be well plowed and furrowed. Set a bunch of the plants three feet apart each way. Hoe them often to keep down the weeds, and they will soon cover the ground, and then will take care of themselves.

I ground a shovel, and went to the marshes and cut out bunches of the vines about 9 to 12 inches square, and transferred them with the moss in them, and they bore fruit the first season. This fall I picked from a few square rods two bushels of good cranberries. O. HORTON. *Sand Lake, N. Y.*

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Apple Tree Hedges.

It is said that apple trees make a hedge equal if not superior to anything else, and by letting them grow pretty thick from the seed, that they will grow scraggy and ugly enough to keep out anything. They would not probably need any more pruning than they would get from the cattle eating them off, unless the farmers improve from the way they are apt to treat their young orchards! The advantages over the Hawthorn would be, a much quicker growth, easier obtaining seeds, and I presume quite as hardy and durable. The pomace itself could be sown without separating from the seed, when more convenient. The Osage Orange will not stand our northern winter sufficiently to be a dependance, and if it did would be no better. H. VAN OSTRAND. *Rock City Mills, N. Y.*

Culture of the Basket Willow.

Mr. L. Tucker—Knowing as I do that the pages of your valuable Journal are always open to the recording of information derived from experience and actual observation, permit me to say a few words on the cultivation of the Osier or Basket Willow.

The willow is a plant which likes a moist, but not a wet soil. It will grow on any ground, but it yields the best crop on a moist soil.

The preparation of the ground for planting, can be done either in spring or fall; but the fall I think the best, as it can be done after other crops are secured. It is done by plowing deep, (or in places where a team cannot be driven, a bog hoe may be used to turn over the sod.) and harrowing smooth. When this is done, I use a line of any length desired, to mark the rows, which should be three feet apart. When this is done. take the cuttings, which should not be less than ten inches long, and stick them down perpendicularly about twelve inches apart, leaving about two inches out.

Setting them in this manner, I think makes a better stock—also when the land is rather dry, the cuttings are more likely to germinate, being deeper in the ground than when set at an angle.

After setting, they require about as much attention the first year as a crop of corn, which may be done by the cultivator and hoe—keeping down the weeds between the cuttings. The second year they require the cultivator once or twice, and after this they will take care of themselves.

The cutting can be done either in spring or fall, but I prefer the spring, say March or April, especially for cuttings for planting.

The peeling is done best in spring when the bark is loose. It is done by placing the willow between two pieces of wood or iron, cut in an angular form, and drawing it sharply through. This loosens the bark, which comes off readily. It is a slow operation, but can be done by children. Mr. Colby of Vermont, has invented a machine, which he says will peel from one to two tons per day. It was my intention to see it in operation, but it was impossible for me to make my visit as intended. If this is so (and I have no doubt of it)—the great drawback to the cultivation of willows has been overcome.

The "*Leverege*" variety makes a fine Hedge; being very bitter, it will not be eaten by cattle.

The amount of crop after the second year, varies from two to five tons per acre, which can be sold at from 5 to 10 cents per lb A market can be readily obtained in New-York, when peeled and put up in bundles.

There are thousands of acres of land in this State, which now grow nothing but bogs and bushes, which might be made to yield better profits than any other land, with a comparatively small outlay; and when we know that from three to five millions of dollars worth of willows are imported into this country every year, I think we can have no fear that the price will be less for years to come. John H. Corning. *Valatie, Col. Co., N. Y.*

Reasons for Growing Ruta Bagas.

Turnips, both of the Swedish and common varieties, are cultivated to a much greater extent in England than in this country. A few years ago we met with a statement to the effect that the annual value of the turnip crop of England, with a population about the same as that of the United States, was somewhere in the vicinity of 20 millions of pounds sterling or nearly equal to $100,000,000. About the same time the turnip crop of the United States was so inconsiderable that it was not included or reported in the Census Returns of 1850 at all. According to the above estimate and the Census Returns of the Agricultural Products of the United States, the turnip crop of England not only exceeds that of the latter country immeasurably, but is fully equal to the largest crops which we raise. According to the census of 1850 the wheat crop of the U. S. was a little over 100,000,000 bushels, which at $1 per bushel would make the value of it just equal to the estimated valuo of the turnip crop of England. In 1850 the hay crop of the U. S. was 13.838,642 tons; and this at eight dollars per ton would again be about of the same value as the turnip crop of England. From these data it is very obvious that this crop is much more highly valued in England than in this country, and much more extensively cultivated.

We were led to make the examination of the Census Returns, &c., the results of which have been just stated in consequence of a visit lately made to an English farmer, who is somewhat celebrated for raising ruta baga and other root crops. He has raised crops of ruta bagas averaging over 600 bushels per acre, for several years, and notwithstanding that he makes as widely known as possible what he esteems as the advantages and recommendations of this crop, still very few of his neighbors have ever been induced to try to raise it. This seems truly surprising considering that the recommendations which he gives of this crop do not fall much if any below a dozen in number. Of these we remember the following as the most important.

1. Ruta bagas are a very profitable or remunerative crop, as an acre will generally produce from 500 to 800 bushels with an expenditure upon it, for seed, labor, &c., of from $20 to $30. Our informant stated that no crop he had ever raised had cost him as much as five cents a bushel, and that for feeding all kinds of stock he estimated them, by a comparison with the value of hay, &c., at average prices, to be worth as much as twenty-five cents per bushel. After deducting expenses of cultivation there would be, according to this estimate a *net* profit of *over* one hundred dollars per acre. Our informant assured us that repeated trials of this root as to its feeding qualities had made him confident, or as he phrased it, "perfectly certain and no mistake," that there is no crop that he raises, or that is usually raised in Northern, Middle, and Western States, which is as profitable, per acre, as this crop.

2. Ruta bagas make a good and palatable food for oxen, sheep and hogs. Horses, also, often eat them.

3. Sheep are particularly fond of them and thrive on them.

4. They are especially good for ewes having lambs.

5. They can be kept easily until there is a good supply of grass in the spring. They do not become pithy or deteriorated in their feeding qualities as white turnips do.

6. They can be planted as a second crop, as the last week in June or first in July is about the right time of sowing, in the latitude of 42° and of two or three degrees on each side of that.

7. They do not "run the land" as they derive much of their nourishment from the atmosphere.

8. They san stand in the ground till all other fall work is disposed of and out of the way.

These and some minor advantages of this crop, having been set forth with some earnestness and enthusiasm have deepened our conviction of the importance of it. To aid in fixing in other minds a similar conviction we have been induced to make a record of the principal recommendations which may be urged in favor of *increased* attention to this crop so generally and so unwisely neglected. Additional reasons for more attention to this crop may be found in Co. Gent. and Cultivator for 1853 and 1854. Obs.

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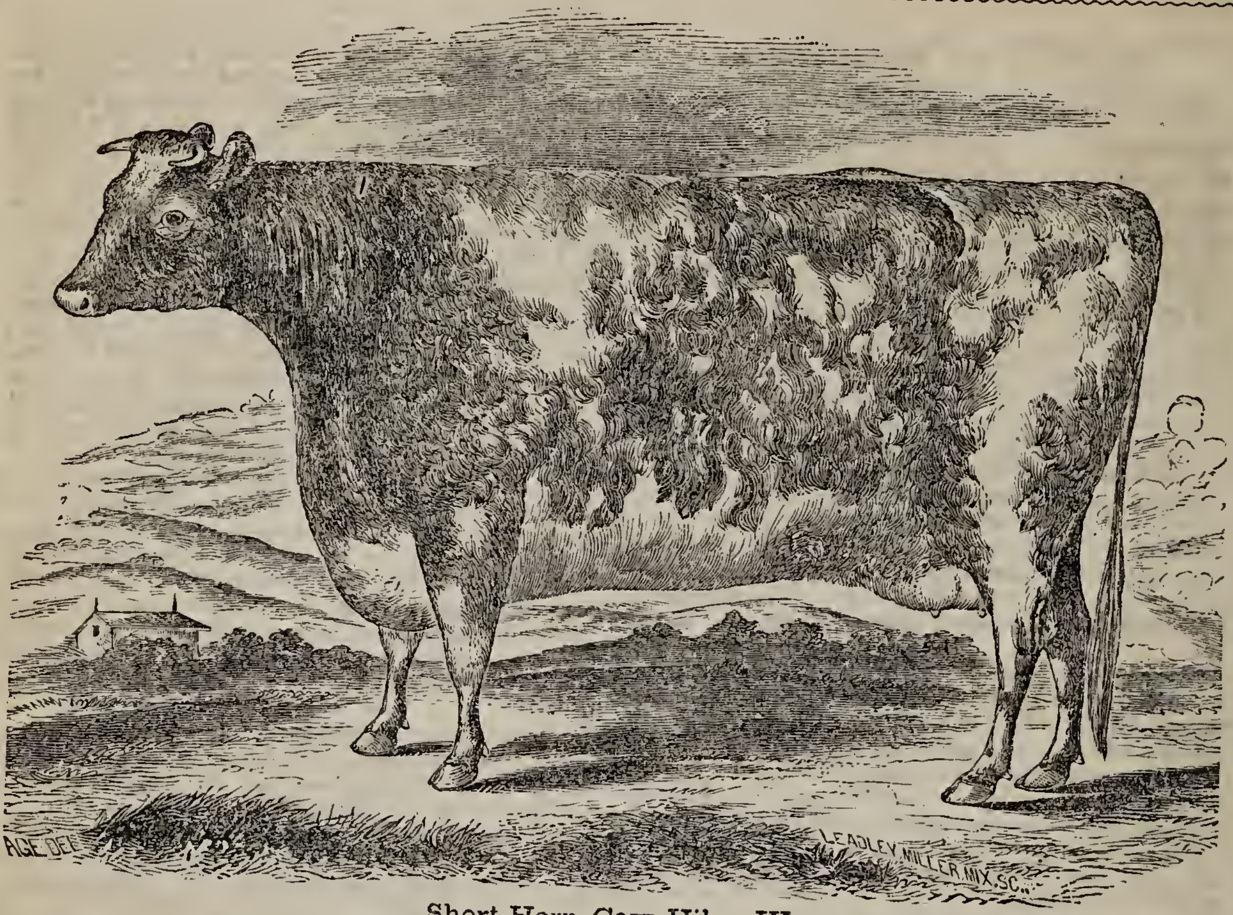
Gas Tar is a cheap paint for farm gates and out buildings, and horses will not gnaw articles which are painted with it. E. M.



Short-Horn Cow Hilpa IV.

Bred by George Vail, Troy, and owned by S. P. CHAPMAN, Clockville, Madison Co., N. Y. Roan—Calved April 9, 1851—got by imported Duke of Wellington, 55—dam, Hilpa, imported, by Cleveland Lad (3407)—g. d. by Red Rose bull (2493)—g g. d. by Rex (1375)—g g. g d. bred by Mr. Richardson of Durham, England, from an old and celebrated milking tribe of Short-horns.

Another Importation of Short-Horns.

"Grand Duke," the celebrated Short-Horn bull, imported by Mr. THORNE of Thorndale, Dutchess Co., having recently met with an injury which incapacitated him for service, Mr. THORNE promptly went out to England, to procure if possible, an animal worthy to fill his place in the herd at Thorndale. With the assistance of Mr. F. M. ROTCH and Mr. H. STRAFFORD, editor of the British Short-Horn Herd Book, he succeeded in the purchase of three bulls—two of the "Duchess blood," said to be the only two of that strain in England—and the third, one of Mr. Booth's breeding. They are described as follows:

1. *Second Grand Duke*, red, calved Sept., 1853—got by Fourth Duke of York (10167,)—dam, Duchess 64,* by 2d Duke of Oxford, (9046)—g. d Duchess 55, by Fourth Duke of Northumberland, (3649,) &c, &c. This bull promises to be a worthy successor of Grand Duke. The price paid for him, was $5000, and there is not, probably, another bull in England, which could be sold at so high a figure.

2. *Neptune*, (11847)—Roan, calved Nov. 14th, 1850—Bred by John Booth, Killerby, Yorkshire--got by Water King, (11024)—dam, Bloom, by Buckingham, (3239)—g. d. Hawthorno Blossom, by Leonard, (4210,) &c., &c. Bloom was bred by, and a very favorite cow of Rich'd Booth, and by him presented to his brother John Booth, when in calf with Neptune, so that he may properly be said to have been bred by Richard Booth.

These two, Mr. T. brought home with him in the steamer Washington. Thet hird, *Duke of Dorset*, was left in England, being rather young to ship at present.

Successful Competition.

We have heretofore published the list of premiums awarded to Col. Morris at our State Fair in 1854, and those awarded to Mr. Melendy of Ohio, in the same year. We now chronicle the success of Col. J. W. WARE of Berryville, Clarke Co., Va., who, it will be seen, has received, during the past autumn, the sum of $399 in prizes, and all of it, except $68, on his splendid stock of Long-Wooled Sheep.

At the Fair of the Virginia State Ag. Society at Richmond:

For best imported Ram and Ewe,	$40
For second best imported Ewe,	10
For best Ram and Ewe of any breed,	20
For second best Ewe,	10

At the Maryland State Fair at Baltimore:

For best imported Ram and Ewe,	$30

[No 2d prize in this class.]

For best thorough-bred Cotswold Ram	15
For 2d and 3d best " "	13
For best pen of Ewes, "	15
For 3d best " " "	5
For best Stallion, "Cosmo,"	30
For 2d best thorough-bred Mare, "Gazelle,"	15
For best thorough-bred 3 year old colt, "Gonzales,"	15
For 2d best thorough-bred 2 year old filly, "Decca,"	8

At the Fair of the Union Ag. Society of Virginia and North Carolina at Petersburgh:

For best Ram and Ewe,	$25
For best imported Ram and Ewe,	30

[In these classes prizes given only for best.]

For best and 2d best thorough-bred Cotswold Rams	30
For best and 2d best pens of Ewes. "	25
For best and 2d best Mixed Long-Wooled Ewes	25
For best and 2d best Middle-Wooled Ewes,	23
For best and 2d best Grade Ewes	15

[In these classes prizes given only for best and 2d best.]

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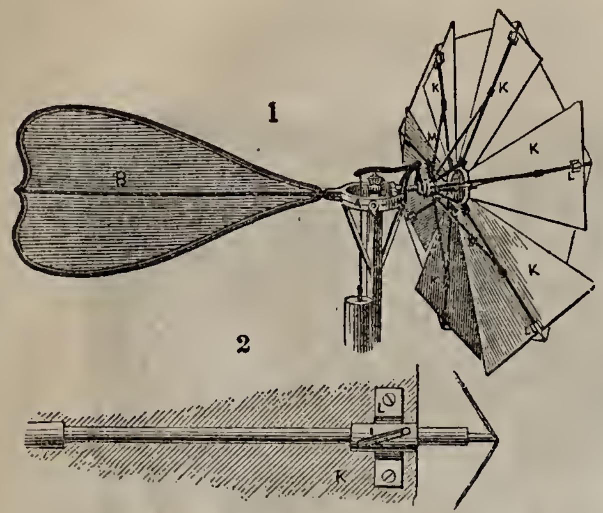
* This cow is now the property of Mr. Thorne, having been imported by him in the autumn of 1853. She was bought at the late Earl Ducie's great sale, the price paid for her being $3000.



The Vermont Wind Mill.

INVENTED BY A. P. BROWN, OF BRATTLEBORO, VT.

The advantage of using wind in preference to horse or steam-power has not been duly appreciated by farmers and mechanics. All the difficulties in using wind-power to advantage are overcome in the mill above represented. It is ingenious, simple, and a most perfect regulator of its own motion. It spreads a wide sail to a light breeze, and a small surface to a heavy one. An accelerated motion is checked by the action of the mill itself as readily as the steam-engine is checked by the action of *Watt's centrifugal governor.*

Its construction will be readily understood by reference to the engraving. The radical feature in which this machine differs from others is simply this: It governs the obliquity of its own fans, *k*, to the wind by means of the centrifugal force of those fans. Each is furnished with a helical or spiral slot or pin, made fast in the arm, as seen at *i*, fig. 2. In case of acceleration, the tendency of the fans is to overcome a suitable coiled spring, or a weighted lever, and to move farther out on their respective arms, and in so doing the spiral groove, or slot, slides on the pin and turns the fan more and more edgewise to the wind, presenting *less* surface. When the velocity of the wheel is diminished, the spring or weight immediately draws the fans in an opposite direction, and the same slot and pin turn them more to the wind, always adjusting itself to the necessities of the occasion.

Cure for Hoof Ail.

Messrs. Editors—I will give you my remedy of treatment for cattle, when diseased in their hoofs. It is well to state that there are two distinct diseases in hoofs of cattle. One is the common foul, as we term it, with little or no swelling of the legs. It is easily cured by an application of some caustic, as blue vitriol, spirits of salts, &c. The other is the real *hoof ail.* The legs of the animal will evidently become much swolen, attended with a high state of inflammation and apparently great pain. I am indebted to an agricultural paper, taken some years ago, for the following remedy, which I have invariably used since, and in every instance, it effects a cure readily, if attended to immediately.

I throw the animal, or confine it in the stocks or gallows, and with a sharp fine tooth saw, take off the end of the hoof, or toes, nearly to the quick; then with a keen strong knife, cut rounding both behind and above the quick, until you can operate with a ready stroke upon the *quick* of the hoof, and the blood flows out freely. If a second bleeding is thought necessary, it can be done when the animal is standing, by a prick at the toe with a sharp awl, or other instrument suitable for such a purpose.

This remedy alone, has been worth more to me, than all I have ever paid for agricultural papers and I have taken them ever since Solomon Southwick started "The Plough-Boy," at Albany in 1819. Poor old man, I have been told that he could not live by the publication. I am glad, Mr. Editor, that you see better days. L. D. Clift. *Carmel, N. Y.*

Messrs. Editors—I noticed in the Nov. No. of the Cultivator, an inquiry, signed by L. C. W., Granville, N. Y. Without attempting to tell what the disease is, I will state the remedy.

Draw a small, well-twisted rope, through the foot several times, till the foot is thoroughly cleaned; then sprinkle in a table-spoonfull of well-pulverized blue vitriol; and repeat the operation two or three times, as the case may require; and you will effect a cure in from six to fifteen days. In this way I cured two cows in about two weeks, that were very lame; one so bad that she could hardly touch her foot to the ground. And one yearling heifer, that was not so bad when I discovered it, was permanently cured in less than one week. O. D. Gray. *Castle Creek, Nov. 5th,* 1855.

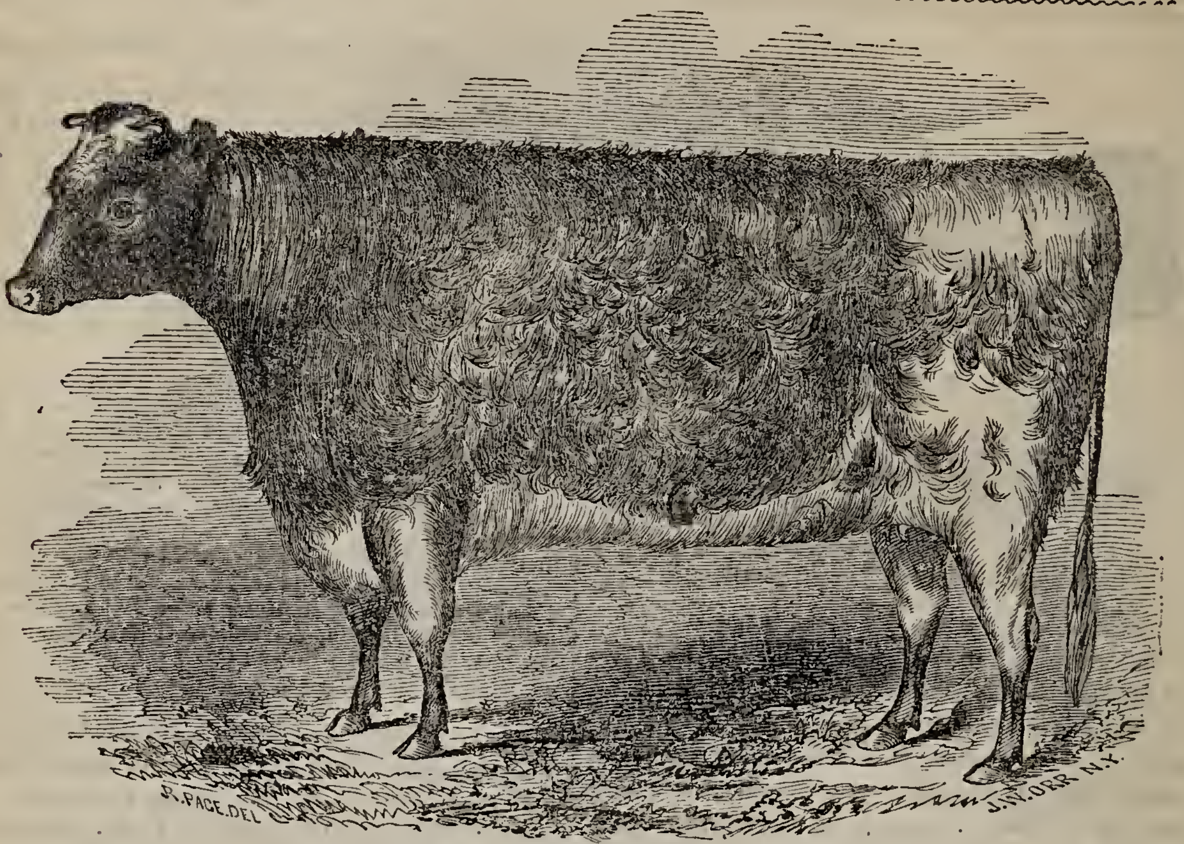
Training Colts.

Messrs. Editors—An inquiry is made in your last paper in regard to the proper time to commence the halter breaking of colts. My advice and practice is, to begin when the colt is weaned. In fact, it ought to be rendered as docile as possible at an early age. Before you wean the animal, it ought to be learned to eat sweet apples from the hand, or take a little oats or bran; and while doing this, gently stroke its head and neck; by degrees accustom it to this usage, and then slip a halter over its head. The best kind is a head-stall halter, made of either rope or leather. But if the colt is very timid, it should be made of rope wound round with some cloth so as not to hurt its head or nose. Not one colt in ten, will give you any trouble if you commence soon enough and are patient enough. Should it object to be led or pull back, take the halter off, and some morning of better humor it will lead; but if not, have a strong halter and let a strông man take hold of it while another anoints its rear with a good whip, using no more severity than is actually needed.

If the animal perseveres in pulling back, when it is tied, tie it to a tree or post with his heels near a small pond or brook; and as he pulls back, the halter if not too strong, will break, and the splash in the water will frighten and cure him. Or tie him to a post, and let him pull himself down and then flog him roundly till he gets up, and repeat until cured. Except in the case of the pond, have a halter that he cannot break, and pick out strong posts when you tie him. James O. Miller, Jr. *Montgomery, N. Y*

New Apple.

The apple, of which specimens were sent us by C. E. Boardman, of Cairo, N. Y., is a beautiful variety, rather large, oblong oval, with a handsome blush on a delicate, waxen, pale yellow skin, and would be worthy of a name and cultivation, if it did not lack one essential quality—*flavor*—in which respect it resembles the Maiden's Blush and Cranberry Pippin—but from the specimens before us, we think it inferior to the former of these two. Being also a moderate bearer, it is less valuable than would be otherwise the case. We cannot, however, judge of the quality of a fruit satisfactorily, from a few specimens, sent under disadvantages to a distance, and perhaps another year may modify a decision of the present



Short Horn Heifer Anna.

The property of Messrs. B. & C. S. Haines, Elizabethtown, N. J.—Roan, calved April, 1852—got by Duke of Exeter, 449, out of Gertrude by Paular, 807—Snowstorm, by Duke of Wellington, 55—Old Snowstorm, by Alexander, 5—Fashion, by Otto, (9463)—Kirker, by Moscow, (9413)—Princess, by Wellington, (684)—Old Princess, by Winyard (703.) [The figures in parentheses, refer to the English Short Horn Herd Book—the others to the American.]

Good Dairy Cows in St. Lawrence.

Office St. Lawrence Ag. Society,
Ogdensburgh, N. Y., Nov. 19, 1855.

Messrs. Editors—I have this day received the enclosed from the writer, and take pleasure in forwarding it for publication as written. Mr. Shepard is the same person, whose six cows took the first prize of this Society in 1854, as the best six exhibited; and the record of whose performances in the milk-pail, were published in your paper, (p. 361, vol. 4,) and a challenge given to any person in the State to produce six better cows, not of the Ayrshire breed.

H. G. Foote, *Sec'y.*

H. G. Foote, Esq.—In the Country Gentleman of Nov. 15th, on the first page, is an article headed "The Model Prize Farm of the Empire State," and when he speaks of the dairy, he foots up the proceeds of five cows, from April 15th to Nov. 15th, at $61,38 each, including milk sold and used, and butter made in the winter following. We have kept an account of butter made this season—have milked five cows—two came in June 1st—two July 1st, and one Sept. 10th, but milked her during the summer up to coming in. From those cows we have made, up to Nov. 15th, and it would perhaps be no more than right to say five cows from June 15 to Nov. 15, 152 days:

Butter, 795 lbs. at 21 cts per lb.,	$166.95
Cheese, 135 lbs. at 10 cts. "	13.50
Calves, raised 6, sold 3 at $15, and 3 on hand,	90.00
Allowing 100 lbs. of pork to 1 cow, would be 500, at $10 per cwt.,	50.00
And then say 2 quarts of milk per day for family use,	6.08
	$326.53

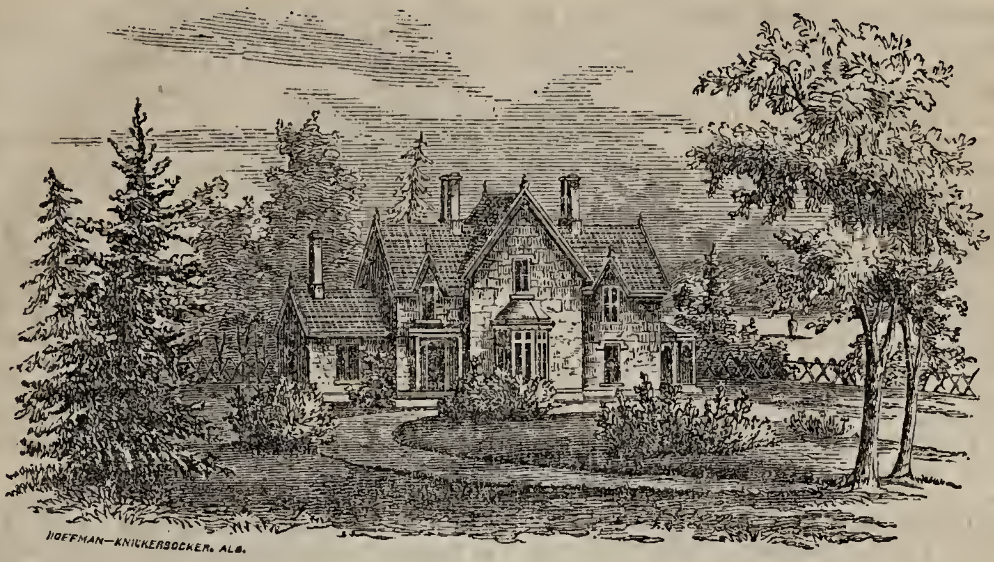
Or $65,30 per cow, without counting any milk sold or butter made in winter. I think that the question as to "Who can beat this," is answered.

Now if you think best and will take the trouble to put this in shape and send the editor, I will be much obliged. E. M. Shepard. *Norfolk, Nov.* 19.

Bloody Murrain in Cattle.

Many cattle have died here this past summer, with the bloody murrain. I have lost four head with it. Can you or any of the readers of the Country Gentleman, state the cause, if my opinion is erroneous. It has always with me, fastened itself upon the most valuable and thriving cattle. The symptons are drooping and twitching of the head, with a quick pulse. In an hour or two there is blood discharged with the urine, and also the fæces, and in twenty-four or thirty-six hours, death relieves them. I have tried several remedies (or at least said to be remedies,) but with no effect. I have been unable to get any physic to pass them; even gun powder and soap did not find its way through, and bleeding was like adding fuel to fire. I opened two cattle (a cow and four year old ox,) and found the manyplus swollen to twice the usual size, and upon cutting it open, found it very hot, and the food tinged with a deep verdigris green, and also the veins in the animal were entirely freed from blood. My opinion is the animal eats something that poisons the stomach, or else they have an appetite to swallow more food than the powers of the stomach can digest and the system consume, which causes a stagnation, and the effort to discharge it, compells the blood to take an unnatural course, and is passed with the urine and excrements.

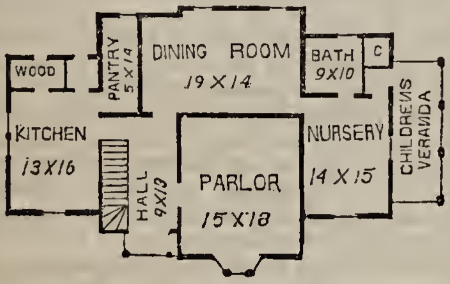
Will some one please reply to this through the Country Gentleman. J. M. Jessup. *Matherton, Mich.*


HOFFMAN—KNICKERBOCKER, ALB.

GOTHIC COUNTRY HOUSE.

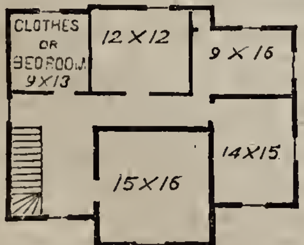
Gothic Country House.*

In order to avoid the fault of the common gothic cottages, seen in all parts of the country, namely a profusion of flimsy ornamental carvings, we present the above view of a simple, well proportioned, and sufficiently tasteful country residence, which may be afforded by most farmers in comfortable circumstances. It need not cost, if built of stone or brick, more than twenty-five hundred dollars; and with wood, eighteen to twenty hundred, might be sufficient for its completion



Principal Floor.

Its exterior needs very little description. There is little or nothing about it which is added purely for ornament, and this materially lessens the expense of erection. The steepness of the roofs prevents danger of leakage at the receding angles, while this quality is not too glaring to detract from its neatness.



Second Floor.

The plans of the interior nearly explain themselves. From the hall, or entrance, ready access is had to the parlor, dining-room, and kitchen, while the latter is rendered less conspicuous by the intervening stairs. The dining-room is longer and narrower than common—a more convenient form for its usual purpose; it is, of course, intended in this moderate plan to serve as a family or ordinary living-room. The bath room may be used, if desired, as a children's bed-room It will be observed that special attention is given to the comfort of children, by providing them with a pleasant veranda, instead of attaching it to the parlor, a room far less frequently used, and used too by those who can well forego a little comfort for a most interesting class of the human race, quite as much deserving, but too often thrust aside to make room for full-grown loungers.

A small wood-room is appended to the kitchen—a detatched wood-house having been found best, being less noisy, and supplying less dirt and litter. The wood room is occasionally filled from it. The chamber over the kitchen may be finished if needed, for the hired man or domestic, and reached by a small separate flight of stairs.

Trial of Seeds from the Patent Office.

Messrs. Editors—In yours of 29th of Nov., you have an editorial, mostly, relating to "seeds and cuttings recently introduced into the United States," through the agency of the Patent Office. After enumerating and remarking upon a great variety of seeds you say—"From any of our readers who have received seeds of any of the plants which have been named, we should be happy to have some account of the results of their trials in cultivating them." Having experimented with a goodly number of the imported seeds, &c., the past season, I herewith furnish you with "the results of my trials in cultivating them;" and if you find my account too lengthy for your columns, omit such portions as you think proper.

CABBAGE AND TURNIP TRIBE.

Of the *cabbage* and *turnip* tribe of plants, I had several varieties. For the turnips, the first week in June carted on to a plat of green-sward, warm fresh manure at the rate of thirty cart-loads per acre; ground well plowed, rolled and harrowed—drills 27 inches asunder; a sprinkling of De Burg's superphosphate dropped in the drills; seed sown by hand, and covered by the head of a rake. The plants came up well, and were not attacked by any kind of insects. They were gradually thinned, so as to stand in the drills from 18 to 24 inches.

The two first drills, on the north side of the plot, were sown with "Ashcroft's Sweedish turnip," labelled, "A large variety, with a reddish top, and yellow flesh, hardy and of quick growth." With me they have proved fully equal to the above description. The top of the bulb is reddish, not the leaves. For the table, they are now the best variety, that I have ever grown, and a large portion of them are almost as perfect in form, as if turned in a lathe. Should they prove as good in future trials, they will become a great favorite with turnip culturists.

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* This is one of the beautiful original designs for country houses, furnished by our associate, Mr. Thomas, for the Ill. Ann. Register for 1856.

The two next drills, "River's Stubble Sweedish Turnip," labelled, "large and first-rate sort in every respect, especially for late sowing." This variety came fully up to the chalk; the bulbs were rather larger, but not so handsomely formed as Ashcroft's, and we do not think them as good for the table. This turnip would probably succeed well on stubble ground, after a crop of wheat or barley had been harvested.

The two next rows, "Sutton's Purple Topped Hybrid Turnip from England, the hardiest, largest and most nutritious of all hybrid turnips"—so said the printed label upon the package, and I shall not contradict the statement. They produced enormous leaves, and I gave them a wide birth, about two feet each way, which is near enough. This, with the two next varieties, are of the English, or flat kind. They were sown too early. The seed, according to the ideas of some of our "old fogies," should have been kept out of the ground till the full moon in July. The three kinds produced heavy crops, but grew somewhat corky. They were fed to my oxen and young cattle.

Two rows "Yorkshire Paragon Turnip, a fine, new white globe variety, very large and solid"—so said the printed notice upon the package; and as far as I could determine, they proved "true to their kind."

Two rows of Lincolnshire Red Globe Turnip; a superior variety more solid and larger than any other variety." If they can grow better turnips of this variety in Lincolnshire, England, than I have raised this season, I should like much to see samples of them.

One row "German Greens," a fine plant for boiled greens. The leaves are thick, succulent, and like the Scotch Kale, very much crimped. A plant well worthy more general cultivation. A few roots taken up in the fall, stored in the cellar, and sat out in the spring and a dozen or two of seedlings, properly cared for, would keep up a succession of greens from early spring till autumn, and would save the "women folks" the labor of scouring the fields in search of a mess of dandelion.

Two rows, "Kohl Rabi." This plant seems to be a "Fusion" between the cabbage and turnip. The *kohl* rises in a thick stem about eight inches out of the ground, terminating at the top into a globular form, somewhat like a large Swedish turnip, the bulb of a milk green color. This vegetable is sweeter, more nutritious, and more solid than either the cabbage or white turnip: produces a greater weight per acre than the latter; it is also hardier and keeps better than any other bulb, and imparts, when fed to cows, but little of that flavor known as "turnipy," either to butter or milk. The seed sown at the time of sowing the Swedish turnip, and cultivated in the same way. The bulbs may be kept sound and nutritious until very late in the spring, even later than those of the Swedes or ruta baga turnips. The above is principally copied from the last Patent Office Report. I cultivated about 200 plants of the Kohl. I cut up half a dozen of them, 3d day of October. They averaged six pounds per bulb. These, however, were of the largest size.

The next row was sown with Early York and Milan Cabbage seed. I will here remark, that the plants removed and set on similar land, did altogether better than those left and cultivated in the drill. From this I infer that transplanted cabbage do best.

On the 12th of June, carted at the rate of 30 loads of partially fermented manure upon sward land adjoining the turnip ground already described; plowed, rolled and harrowed the same as for turnips. On the 14th commenced setting cabbage plants. The two north rows were "pure Early York," seed from the Patent Office; holes for the plants were dug with a hoe; plants set by hand, not dibbled.

First row, 12 plants, east end, Peruvian guano, (about a teaspoonful mixed with the soil excavated by the hoe,) next 12, superphosphate; next 12, Mexican guano; next 12, same amount of gelatine, (an artificially prepared manure, manufactured from old boots, shoes, scraps of leather, &c; a sample of about 20 lbs. was sent to me to experiment with from the manufacturer, Boston.) Second row had the different kinds of manure reversed, that is, the gelatine was used in the hills of the 12 plants opposite the guano —the guano to the 12 plants, west end of second row —superphosphate and Mexican guano, reversed in the second rows. Very much to my surprise, I was never able to discover the least difference in the plants, from the different manures, from the time of planting till harvesting.

The two next rows, planted with "Milan, healthful or salutary cabbage, selected by the agent of the office in France." This cabbage very closely resembles the choicest variety of Savoy, growing much larger, with more compact heads than any Savoy I have ever raised. For the table I put them down No 1. A heavy, warm rain the 2d day of October, caused many of the York, and some of the Milan, to "*burst* their boilers." Next day I cut a large wheelbarrow load of the Yorks; they averaged six pounds each—rows 2 feet apart, plants 18 inches in the rows. Great numbers of the Milans weighed from 12 to 14 lbs. each. The manure used on the balance of the ground was about an equal mixture of the four kinds above named.

The two next rows, "Mammoth Brockoli." They produced a large amount of foliage, but none flowered.

The turnip crop has been said to be the sheet anchor of British agriculture; but the climate and temperature of old England and New England are quite dissimilar. With such seasons as the past summer and autumn, the turnip can be most profitably grown here; but with such seasons as 1853 and 1854, it is a precarious crop. Those two seasons, the fly took the plant in the seed leaf; then the drouth, lice on the leaves fingers and toes and rot, nearly used up the crop of cabbages and turnips on half an acre. The past season, neither fly, louse, drouth, rot, or scarcely finger and toes, have injured any of the several varieties of cabbage and turnips I have cultivated.

But notwithstanding the risk of an occasional failure of the turnip crop, I think it would be for the interest of most farmers to grow them in connexion with other green forage, both for autumnal and winter feeding. Some sort of succulent food, in connection with the dry winter foliage, usually fed to our cattle, is indispensable to their perfect health and thrift.

Our cattle were orginally created and constituted to subsist their lives-long on green and succulent forage. By domestication they have been gradually introduced from warm regions to the cold north, where they have to be fed six months or more, each year, upon dry, and too frequently, innutritious food. Now, as Sam Slick says, "this aint *natural*." Suppose 90 per cent of the cabbage, turnip and apple, is *water*--what of that? I had rather have 90 lbs. cabbage, turnip, or fresh apple juice, for my cattle, than 100 lbs. of ice cold water such as nine-tenths of our cattle drink every winter.

Of the different kinds of wheat, I sowed about 20th of September, in drills, 18 inches apart, the following kinds, viz: Cape wheat, from the Cape of Good Hope, procured by Commodore Perry, of the Japan Expedition; Turkish Flint wheat, from Mount Olympus in Asia; Pithusian wheat, from the Island of Ivica; wheat from Japan; Early Noé wheat, from France. "This wheat has the property of ripening some days before the common sorts; if it succeeds in our climate in this respect, a great point will be obtained. A single week thus gained in ripening would often secure, the crop from injury by the fly or rust, aside from the advantages to be acquired from an early market." Algerian Flint wheat from the province of Oran. This variety has a remarkably large berry, rather dark-colored and weighing 70 pounds to a bushel. The above named six varieties came up well; no two kinds look alike; a difference in color is plainly visible at the distance of several rods. One half the length of the Pithusian wheat blades are now brown, as if killed by frost.

Early Bassano Beet. "This variety comes into use a week or ten days sooner than any other sort. Roots flat, turnip-shaped, light red; flesh white, circled with rose color, very tender and juicy, and will grow to good size on light soil." So says the Patent Office Report, and I can attest the correctness of the statement. Of several varieties raised in my garden the past season, this had the preference over all others at my table.

Vosge's White Carrot, from France,—produced carrots precisely like seed procured at one of our stores. Not first chop by a long chalk.

St. James' carrot from England—real beauties—nearly all of good size; dark yellow. For the table, and marketing, none better. Probably would not yield as heavy crop as the Altringham or white Belgian.

The Hollow Crowned Parsnip did better than the large Dutch. Grew some on sandy, and some on dark moist loamy soil—very fair crop.

Early white Onion. These did a little better than some other varieties I cultivated. Some of the Whites grew to the size of a dollar. My other sorts were all scullions.

Sea Kale and True Giant Asparagus—came up well. Whether asparagus is Giant or Pigmy, depends much upon the manner of its cultivation.

"Fluke Potato." Planted seven good sized ones, and obtained four times the number, the largest as big as good sized walnuts—hope they may improve some next year.

About the 12th of June, received some French Prune scions, most of them in bad condition. The scions were grafted into plum stocks on the 15th of June. Two only grew, one of which has grown nearly five feet.

A package of Sweet Corn, much larger ears, and later than the kind I usually cultivate. Yet is was very productive and good. There was one objection to it—the ears were so large that none but persons having the biggest sized mouth, could eat it the natural way, that is, gnaw it from the cob.

Baden Corn. Too late in maturing, for the Granite State. However, I suppose New Hampshire farmers could do what Mr. Baden did—by careful and long continued selection of seed corn, produce four or five ears, where they now get but one or two.

Spurry. Received a package from the Patent Office several years ago. Sowed on sandy land. It produced a matted mass, similar to chickweed; next year the land was laid down to grass. It has once since been plowed and planted; the spurry came up, and proved a troublesome weed.

This summer I found it among my hoed crops, on a distant part of my farm from which it was originally sown. My impression is, that once introduced on to a farm, the farmer would find it an ugly customer.

I have tried the Lucerne, Orchard grass, Tall Meadow Oat grass, Ray grass, and Sweet Scented Vernal grass. To succeed well with Lucerne it must be sown on a deeply worked soil; sown in drills, and kept clear of grass and weeds—for one or two years. The Orchard grass, is too apt to grow in tussocks. The Meadow Oat grass, when headed out, looks beautifully, but cattle do not relish it, either green or made into hay. It is earlier than any other of our cultivated grasses, and sheds its seed very easily. I introduced it on my farm a dozen years ago. I do not consider it quite so great a pest as the daisy, (white weed,) or Canada thistle, but most heartily wish it was extirpated from my farm, seed, root, and branch.

Twice I have attempted to cultivate the Ray grass. It came up and flourished well the first season. Next year but very little to be found. Third season, all gone.

The Sweet Scented Vornal grass gives a very fragrant smell to hay, when drying. The long green leaves, done up like sticks of twist, and placed in a snuff box, give the snuff an odor equal to the Spanish bean. Once introduced in a pasture, or on to a farm, I think it would maintain its foot-hold.

"All flesh is grass," so says the Bible, and so said Gov. Wright at your State Fair. But till better advised, I think most of our farmers will do as well to cultivate Clover, Herds, or Timothy, and Red-top grass, with a sprinkling of white clover, or honeysuckle, as they will with any other grasses that can be introduced among us. L. Bartlett. *Warner, N. H. Dec. 3. 1855.*

Mowing Machines in Essex Co., Mass.

We are indebted to J. W. Proctor, Esq., for a Report on the Mowing Machines which competed last summer for the premium offered by the Essex (Mass.) Agricultural Society, for the best and most satisfactory experiment with a mowing machine, operated by two horse power, on not less than fifty acres, on any farm or farms within the county. A premium was also offered for a similar experiment with a *one horse* machine, but there was none entered. The following facts are abstracted from the statements of the competitors:

No. 1. Manny's machine, made by Adriance & Co., of Worcester, used by W. F. Porter, of Bradford, horses weighing 2500 lbs., cut 116 acres—average time of cutting, 54 minutes per acre—average quantity per acre, 1¼ tons.

No 2. Ketchum's machine, made by Ruggles & Co., of Boston, used by Geo. B. Loring, of Salem, horses weighing 2000 lbs., cut 51½ acres—average time of cutting per acre, 52 minutes—average quantity per acre, 1½ tons.

No. 3. Manny & Co.'s machine, made by Adriance & Co., of Worcester, used by Horace Ware, of Marblehead, horses weighing 2100 lbs., cut 54 acres—average time of cutting per acre, 48 1-6 minutes—average quantity per acre, 1¾ tons.

After a careful examination, and a free discussion of all the points presented, it was determined by a vote of a *major part of those present*, that the premium of $50 be warded to W. F. Porter of Bradford.

In making this award for *the work done only*, the committee wish it to be distinctly understood that they do not intend in any manner to give a preference for one machine over the other,—because they do not feel themselves sufficiently informed as to the principles involved in the structure and operation of the machines, to express such a preference. They indulge the hope that it will ere long be in the power of the makers to make them more complete, both as *to the quality of the materials* and *the manner in which they are put together*. Notwithstanding the satisfaction they have experienced in witnessing the *work done*, they are constrained to say that the accidental injuries have been so many, and so oft occurring, that they cannot recommend these machines without this qualification.

The committee are satisfied that it has been unequivocally demonstrated, that one man with a good pair of horses or oxen, suitably trained to work, can cut one acre of grass an hour, yielding from one to two tons to the acre,—or from 8 to 12 acres per day, under favorable circumstances—at a cost of labor not exceeding *fifty cents* per acre.

Leached Ashes and Lime as Fertilizers.

The remarks in the Country Gentleman of Nov. 22d, on the subject of Leached Ashes as a Fertilizer, have induced me to offer a few suggestions to *you.* I have used leached ashes on potatoes for many years. I have found to my satisfaction, that a mixture of equal quantities of ashes and plaster is better than the same quantity of plaster. I have applied the mixture to the corn as soon as the corn was up, and after the first hoeing. I have also had a boy to drop the mixture on the corn, or in the hill as the corn was planted. The latter is the best way to apply, according to my experience. I think far the best. I have mixed unleached ashes with the plaster, and applied it in the same way, and found no benefit; there was no apparent difference between that where this mixture was applied, and where there was none. I tried it but one year, and as plaster has but little effect some seasons, the season may have been the cause.

My ashes are made from the wood burned in the house, and our soap is made from them early in the spring, and the ashes stand in the leach till about planting time, say about eight weeks; some years not exposed to the atmosphere two days, except the surface at the top of the leach, and in some seasons very little rain falls during the six or eight weeks. Could these ashes, when in the leach, and for so short a time, have obtained from the rain water and atmosphere the *nitrates* to which you seem to attribute the fertilizing or valuable qualities of leached ashes? (*a.*)

I one season found my ashes so wet that it was difficult to mix them with the plaster. I dried them in a kettle over a hot fire. I found no benefit from them, or very little, that year. Did the burning them over again injure the ashes? or was it caused by the season and the soil to which they were applied? If Mr. Edgerton's speculations be correct, may it not be attributed to the particular kind of wood from which the ashes were obtained? (*b.*)

I have two farms. On one the soil is generally a clay loam on a lime rock. The lime rock is near the surface, and the springs of water are so impregnated with lime that the *tea-kettle* must be cleaned out once in three months. There are on my farm deposits, 20 feet in depth, of what appears to be pulverized lime. I send you a sample. It makes the most beautiful white lime I ever saw. In the early settlement of this town, my father burned this for lime. It was difficult to burn, on account of the difficulty of getting the fire or heat to pass through. But the question is, where did this lime come from? or how was it formed? From the appearance of these deposits and the brook, (called Lime brook,) the stream must have been dammed up, and the lime in the water settled. (You may call this speculation.)

On my east farm, near the foot of the Green Mountains, the water is soft, and the stone flint; no lime gathers on the tea-kettle from the water. Will the trees growing on limestone land, contain the same amount of silex as the trees grown on the land where silex exists, and no lime visible, and where none is discovered in the water by common use? In those seasons when I could discover no material benefit from the application of ashes, can the failure be attributed to the soil? I should perhaps have consulted an agricultural chemist, and he might have told me to be careful and put the ashes obtained from wood grown on the limestone land, on the soil where silex predominates. (*c.*)

I know a person who had for many years occupied a farm on the east side of the Green Mountains, where the water was soft. He had used lime there as a fertilizer to great advantage. He purchased a farm near me. Almost the first work he did, was to erect a lime kiln. I remarked to him, I thought the demand for lime would not justify the expense. He said he should burn it for his own use, to put upon his land. He stated what benefits he had derived from the application of lime to his land on the other side of the mountains. I expressed the opinion that he would receive no benefit from it on his farm. He burned his kiln, and put about 20 loads of lime to the acre on the same land from which he took his stone to burn. And the effect was about the same as to carry sand as a fertilizer on to the sandy plain between Albany and Schenectady.

After all, from a long life devoted wholly to the farm, and of late years somewhat to the speculations and facts disclosed by Agricultural Chemistry, I have come to the conclusion that there are more fertilizing matters floating in the atmosphere, and falling on the earth in dews, rain and snow, than is generally imagined; and that a proper preparation of the soil to receive these fertilizers, is best calculated to procure a good crop. I would not speak lightly of agricultural chemistry or science. Great good has resulted from it,—more I think, however, by turning the attention of the practical farmer to his own experience, than from the knowledge he obtains from chemical experiments. Nature, no doubt, has many secrets which, if unveiled, would be highly beneficial to the farmer, and by torturing her in ten thousand ways, she has revealed much that is valuable; yet all confessions obtained by torture, can not be safely depended upon as truth; not unfrequently it has happened that by torture the subject has revealed what was taken as truth; but by the application of a more refined process of torture the subject has, with more apparent sincerity, falsified his first confession. May not this apply, in some degree, to the disclosures made by the agricultural inquisition? J. S. Pettibone. *Manchester, Vt*

REMARKS.

(*a.*) It is not probable that in so short a time, and under such circumstances, the leached ashes could absorb any notable quantity of nitric acid and ammonia from the atmosphere. When mixed with the soil, however, they may obtain these fertilizing substances from the air and rain with great rapidity. It must be recollected, too, that, according to the ingenious hypothesis of Prof. Way, on which these speculations are based, the plant takes up its silica as an ammonia-silicate; and we have assumed that leached ashes contain the silicate of alumina and soda or potash, which, when brought into contact with ammonia, will be decomposed, and the silicate of ammonia be formed. If this is the case, leached ashes may act beneficially by supplying to the soil, not ammonia but that substance which, when combined with the ammonia of the soil, the air and rain-water, is especially needed by Indian corn, wheat, and all plants containing a large quantity of silica. A light sandy soil is probably much more deficient of the double silicate of alumina and soda, &c., than a clay soil, and we should, therefore, expect a greater effect from *fresh* leached ashes on sandy land than on the clays, while *old* leached ashes *may* exert as great an effect on the clay as on the sandy soil. In the former case the land is supplied with the means of preparing for the plant its appropriate food; in the latter the food is furnished already prepared. It does not follow, therefore, that because *fresh* leached ashes, which could not have obtained before they were applied to the soil ammonia and nitric acid from the atmosphere, have a good fertilizing effect, that, therefore, the fertilizing effect of leached ashes cannot be ascribed to their supplying the plants with ammonia or nitric acid. The fact that leached ashes supply to many soils fertilizing substances which unleached ashes do not furnish, cannot be doubted. We may be wrong in ascribing it to the ammonia and nitric acid, or to the double silicates, but we have no other hypothesis that agrees so well with the facts of practical experience. We must repeat, however, that we consider these views quite hypothetical.

(*b*.) Prof. Way states that burning destroys the power of the double silicate of alumina and soda to combine with ammonia. If, therefore, leached ashes act as we have assumed, burning them after leaching would destroy or greatly impair their fertilizing action.

(*c*.) We do not fully understand this question. The composition of the soil is supposed by some chemists to affect the composition of plants grown upon it. There are numerous facts, however, that we cannot now mention, which have led us to douht whether the same plant, *fully matured*, differs materially in composition according to the soil in which it is grown. Of course the ashes from hard wood would not be of the same composition as the ashes from soft wood, but the ashes of either would he the same when grown on soil with "no lime visible" as on "limestone land." At any rate, the difference would be too slight to affect the manurial value of the ashes, leached or unleached. If our esteemed correspondent has any facts bearing on these points, we shall feel obliged if he will communicate them to the readers of the Country Gentleman.

Large Ruta Bagas.

Our readers will remember that in a late number we published a notice of several very large roots of this plant, namely, 10 weighing 112 lbs., or more than eleven pounds each as an average; and another weighing 16½ pounds,—accompanied with the inquiry, "can any one beat it?" Of course; for what has been once done, may be done again. In the year 1836, when the Ruta Baga crop was much more extensively cultivated in western New-York than at present, a root was selected from a crop raised by Wm. R. Smith, of Macedon, Wayne county, which weighed *fifteen* pounds--and from a crop raised by Edward S. Townsend, of Palmyra, in the same county, three were found of equal size to this, and one which weighed *eighteen pounds*. It would apparently not go into a peck measure. The soil was very deep and fertile, being the site of an old removed stable, the season was very favorable, and *plenty of room* was given for growth—a thing too often neglected, and which the ruta baga especially needs. Several square rods yielded at the rate of 1200 bushels per acre—the piles of these monsters were indeed striking. The weighing was done in the presence of one of the editors of this paper.

[The above remarks were penned before the notice of still larger specimens, in a late No. of the Country Gentleman, came to hand. These show however, the great importance of a very highly enriched, and still more of a *well intermixed* soil, for the *same amount* of manure as existed on the site of the old stable, applied in the common way in the season of sowing, would certainly not have produced one third the size, as multitudes of experiments have proved. We should be glad if our scientific agriculturists, in the course of their reasonings and discussions on the relative value of yard manure and guano, would take into consideration *the manner of application to the soil*. For it will be reasoning to no purpose, to go into a calculation just how many miles and rods it will pay to draw manure, without knowing whether, when it reaches its destination, it is to be thrown on top of the earth, and perhaps half of it plowed under in lumps as large as a fork-full, and there remain; or whether it is finely pulverized and thoroughly intermixed by repeated harrowings and occasional plowings. Where the latter mode of treatment is thoroughly applied, the effect of a ton of yard-manure is often at least QUADRUPLED, when compared with the ordinary careless manner of burying—such at least is the result of the experiments we have witnessed. And the superiority of old enriched soil with the fertilizing ingredients completely diffused, as in the ruta baga crop above mentioned, amply corroborates the opinions.]

The Sting of Wasps, Acid.

We have never found any thing so efficacious for venomous stings, as a paste made of saleratus. A sting in the finger by a yellow wasp which felt as if it nearly pierced through, was entirely relieved of the swelling and of every other unpleasant feeling, in a short time, except the simple soreness of the *puncture*, like that of a needle, by this application. There may possibly be other alkaline applications better than this, but we do not know them.

In corroboration of the correctness of the theory on which this remedy is founded, we have lately observed an incident mentioned in the travels of James Backhouse, an eminent English naturalist and missionary, in the Mauritius and South Africa. In passing through the forests, his hat came in contact with the naked combs of a large, ochre-colored wasp, and one of them avenged himself by stinging him in the finger. "The burning pain subsided in a few minutes, on pressing out the poison, and sucking the part affected. The poison was *distinguishably acid*."

Bread from Grown Wheat.

Having read a number of recipes on bread-making, from grown wheat, let me give you my experience, and I may venture to say that my bread is as white and light as is made by any person.

I use neither alum nor whiskey, nor do I kiln-dry or scald my flour. I use nothing to make it rise but hop-yeast cakes, (or turnpikes, as they are called,) generally about one to two loaves of bread. Beat the cakes up with warm water until it is about as thin as gruel; mix your flour and water together in another pail until it forms a thin batter; then pour in your yeast cakes, and beat thoroughly together; set it away now until it rises, after which pour it into your kneading trough and work it with flour until it is as hard and stiff as you can get it. Form your loaves now, and set them near your stove to rise until they become perfectly light; then bake in a hot oven for about three-quarters of an hour; take them out, and the next morning you will find that you have as good bread as you wish to eat. W. F. Sands.

Apple Sauce.

Apple sauce is an article of daily winter consumption with us, and we have the best I ever tasted—far superior to the old fashioned boiled cider apple sauce. We make it thus: Pare, quarter and core nice sweet apples; dry them on a rack made of sacking, suspended over the kitchen stove. When dry, wash them and stew them in new cider; when done, the cider will be sufficiently boiled to keep until warm weather. A few quinces improve the sauce. If there is danger that the cider will "work" before you get time to use it, just scald it and it will keep a few days longer. E. E. *Cedar Hill, Vt.*

Storing Potatoes.

Eds. Co. Gent.—For several years we have found the following to be effectual in preserving potatoes from decay, throughout the entire winter; and, so far from injuring them for table use, it makes them more palatable:

Put them in the cellar as dry as possible, and before putting them in the bin, sprinkle the bottom well with slacked lime, and give the potatoes a slight sprinkling as they are deposited. Care should be taken, not to use enough to generate heat sufficient to cause them to vegetate. A. J. C. *Charlton, Oct.* 10.

Inquiries and Answers.

Parsnips for Milch Cows.—Will you inform me through the columns of the Country Gentleman, respecting the qualities of parsnips as feed for dairy cows through the winter. I have a quantity, and would like to know if you think them good feed for milking cows. Thomas Jinks. *Lexington, Ky.*

Parsnips are very highly esteemed as food for milch cows, as well as for pigs and poultry, in the Island of Jersey, where they are extensively grown for this purpose. We quote from the Cyclopedia of Agriculture: "When parsnips are given to milk cows with a little hay, in the winter season, the butter is found to be of as fine a color and excellent flavor as when the animals are feeding in the best pastures. As parsnips contain 6 per cent. more mucilage than carrots, the difference may be sufficient to account for the superior fattening, as well as butter-making quality of the parsnip. Don observes, that "in the fattening of cattle the parsnip is found equal, if not superior to the carrot, performing the business with as much expedition, and affording meat of exquisite flavor, and of a highly juicy quality; the animals eat it with much greediness. The parsnips are given in the proportion of about 30 lbs. weight, morning, noon, and night; the large ones being split into three or four pieces, and a little hay supplied in the intervals of these periods. The result of experiment has shown, that not only in neat cattle, but in the fattening of hogs and poultry, the animals become fat much sooner, and are more healthy than when fed with any other root or vegetable; and that, besides, the meat is more sweet and delicious."

South-Downs.—A subscriber in Washington Co., wishes to know where he can get South-Down sheep nearest to Whitehall. Those having them would do well to advertise. A reference to our notices of the various State and County Fairs, will show where good sheep, of this or other breeds, can be obtained.

Shepherd Dogs.—Where can shepherd dogs be found for sale, and what is the price each, or pair? B. F. Bush. *Shiawassse, Mich.*

The Wire Worm.—Can you, or any of your corresdents, inform me how to destroy the wire worm. They have made sad havoc in my strawberry beds this summer; if a remedy cannot be found it will be useless to replant, as the ground is literally alive with them. James McKain. *West Manchester, Alleghany Co., Pa.*

Food for Fowls During Winter.—Can you inform me through the Country Gentleman, what would be the most profitable food for fowls during the winter season. Are you of opinion that small potatoes (boiled) given warm, and occasionally oats, would be profitable food. As I am an *amateur* in the business, if you will give me the benefit of your advice you will confer a favor. W. R. H.

Fowls must have a variety of food. Boiled potatoes mashed up with corn and oat meal, and fed warm, make a healthy and nutritious food. Unground oats, especially poor, light oats, are almost worthless as food for all kinds of poultry except geese. Fowls will eat them only when they can get nothing else, at least this is our experience. Buckwheat this year is a cheap food for fowls, and may be fed to them without grinding. If you live in the city, buckwheat and corn, with a few scraps of meat, cabbage, &c., will be your cheapest food, unless you can get light or damaged wheat or "screenings" from the mills or farmers.

Remittances.—*J. A. M.*—Money may be sent us by mail at our risk, but where the amount is much, it would be well to have the letter containing it "Registered" at the office from which it is sent.

Management of Colts, &c.—Can any of your subscribers give me information in regard to the raising of colts, breaking, &c. I have read through Youatt on the Horse, but I need something more practical. When can he be haltered? which is best a rope or leather halter, &c. Had the colts better be fastened to a tree or sapling and for how long? J. M. E. Valk. *Meadow Bluff, Va.*

Callus from a Kick.—I have a valuable horse that has a callus on his leg caused by a kick from another horse. If you, or some of your correspondents, will inform me through the Country Gentleman, what will remove it, you will confer a favor on a subscriber. J. M. C.

Swamp Mud.—Will you be kind enough to inform me if rich swamp mud, put up in heaps this fall, would answer as a manure for corn next spring, on a gravelly soil, and also how long its effects would last as nourishment for the following grain crops. W. J. N. *St. Martins, C. E.*

Rich swamp mud, ameliorated by the frosts of winter, would be an excellent manure for corn or any other crop, but especially for turnips, ruta bagas, &c. We cannot tell how long it would last. It depends on the nature of the mud, of which we have no means of judging. It would, probably, last *longer* than barnyard manure. If it was mixed in a compost heap with horse manure, or any other rapidly fermenting substance, it would be much improved. Where swamp mud or muck is easily obtained, it should be freely used about the barn-yard, manure cellar, &c. This is the best way to use it. It absorbs much fertilizing matter which would otherwise run to waste, while the elements locked up in the muck itself are rendered available by fermentation, &c. Will our readers give us their experience in the use of muck, &c.

English Ag. Papers.—*A Subscriber.*—The *Mark Lane Eupress* is a good English Agricultural and Stock paper, published weekly at 246 Strand, London. Price, including two cents per week English postage, which must be prepaid, $8.50. The *Farmer's Magazine*, a monthly of 144 pages, with one or more beautiful steel engravings of stock, contains most of the agricultural matter of the *Mark Lane Express* with some additional articles. It would probably suit you better than the *Mark Lane Express*. It is published at the same office; price $7.50 per annum. The *North British Agriculturist* is an excellent weekly agricultural paper, published at 377 High Street, Edinburgh; price and postage, $6,50. The *Irish Farmer's Gazette* is a spirited weekly, published at 23 Bachelor's Walk, Dublin. Price and postage, $6. You can obtain any of these papers by addressing as above.

Manure Drill.—Will you inform me who makes or where I can purchase a garden drill, that will sow concentrated manures in advance of the seed and about an inch deeper? If you could you would confer a great favor. H. S. Coon.

Manure drills are common in England and would be quite useful here. We have frequently urged our ingenious manufacturers to direct their thoughts this way, and get up a cheap and simple machine that would sow manure and seed at the same time in drills. We believe, however, there are none made at present in this country. If there are we should be glad to hear from the manufacturers.

French Chestnuts.—In reading the Cultivator, I noticed an inquiry whether French Chestnuts would grow in Washington. I think they certainly would, for the trees have grown finely here on Long Island; but the season was not long enough for the fruit to mature. Chas. A. Carravello. *Jamaica, N. Y.*

Artificial Manure for Corn and Potatoes—What fertilizer would you recommend in place of stable manure, for an acre lot I design to plant in corn and potatoes next spring? It is a lime stone soil, pretty well worn. What quantity and how to be applied? E. M. M. C. *New Castle, Lawrence Co., Pa. Nov.*

The cheapest artificial manure you can use on corn and potatoes is Peruvian guano. Sow it broadcast on the land, and harrow it in as early in the spring as possible. From 200 to 400 lbs. per acre is the proper quantity. Mix nothing with it, except it be muck which renders it less unpleasant to sow.

Cotswold Sheep.—*R. B. Hodson, Spiceland, Ind.* The New Oxford sheep or more properly the Cotswold, can be obtained of J. W. Ware, Berryville, Va. Mr. Stone of Guelph, C. W., has also recently imported some superior sheep of this breed. Mr. Miller of Markham, and many other gentlemen in Canada West have Cotswold sheep for sale.

It is difficult to say "which is the best breed of swine." No breed is best under all circumstances. In the neighborhood of large cities, where fresh pork is in demand, the Essex or Middlesex is perhaps the most profitable. If a medium sized breed is required, the Suffolk or Berkshire has no superior. If very large hogs are required, the Leicester and Yorkshire are the favorites.

The Wild Lands of Long Island.—Do you or any of your readers know any thing of the wild land of Long Island—whether it is worth buying for a farm or not, and what the price is per acre? If any of your readers can give me the necessary information I should be much obliged. S. A. Lawton. *Pittstown, N. Y.*

Like our correspondent we should be glad to know the truth in regard to these lands. There has been for some years a great deal said about them in the New-York papers, and if we might credit half the stories told, we should conclude that all the farmers in the neighborhood were quite ignorant of their business, and lacking in ordinary energy and common sense. We shall wait for more satisfactory evidence of the agricultural value of these lands than any we have yet seen before we come to such a conclusion. Still, considering that these lands are within two hour's ride of the great Metropolis of the New World, it is quite probable that, by the aid of good tillage, and the use of artificial fertilizers, they may be made very productive, without sinking more money on them than would buy a farm of naturally rich land. To make poor land rich, always was and always will be an expensive process; but it has frequently been done with great profit on as poor land as that under consideration, and under much less favorable circumstances.

Botany.—Will you inform me which is the cheapest and best work on Botany, and where it can be had. W. F. *Libertyville, Ill.*

Gray's Botanical Text Book, for an elementary treatise; and Gray's Manual of Botany of the Northern States, for a description of plants. They are published at Boston, and may be ordered through the principal booksellers.

Northern Muscadine Grape.—I see in your paper an advertisement of this grape, said to have been raised by the Society of Shakers. Do you know anything of its merits? W. F.

We have carefully examined the "Northern Muscadine grape," from specimens sent us, and received in good order. It is not essentially different from the best varieties or modifications of the early Fox Grape, and may prove valuable so far north that the Isabella will not ripen, and for those who like the peculiar musky flavor of the Fox grape.

Planting Locust Seed.—In a recent number of your valuable journal, you recommend Honey Locust as capable of making a strong hedge with little care. I have adopted your suggestion, and planted a nursery also to supply plants for the breaks. There appears to be a difference of opinion regarding the mode of treating these seeds, and I have to appeal to you or your correspondents for information. I was told by a gardener of some note, to scald both Yellow and Honey locust seeds, and to plant them in the fall; since then I have been told that they probably will perish during the winter. The soil is a sandy loam. Information on this subject will probably interest many. D. A. *Washington City, D. C.*

The seeds of the Yellow Locust need scalding to cause them to germinate. They remain in the water some hours after it has cooled, and the swollen seed only will grow. The process must be repeated on the unswollen ones. If planted in autumn, these swollen seeds would be liable to rot. Honey Locust seed do not need scalding, and should be planted in spring.

Black Apple, &c.—Please inform me through *The Cultivator*, where I can obtain the Black Apple, the Sweet Quince, and the Black Rose, and oblige Eli V. Clark. *West Andover, O.*

The Black Apple, and several varieties of black roses may be procured at the larger and more extensive nurseries. We do not know a sweet quince, although the Portugal is less astringent than the common varieties.

Apple and Peach.—You will oblige me by giving descriptions of the Pine Apple Russet Apple, and the Lemon Freestone Peach, *with the glands of the leaves.* I have never seen a description of these fruits in books or catalogues. J. Waters. *Lanesville, Conn.*

We know of no peach by the name of Lemon Freestone. The *Pine Apple Russet*, is a European variety, and our correspondent will find Lindley's description copied into Downing's Fruit and Fruit Trees, p. 93.

Wood for Underdrains.

The remarks of S. E. Todd, of Tompkins county, in a late number, on the perishable character of wood for channels of underdrains, contain a great deal of truth. We may perhaps be allowed to add in corroboration, that we have often used wood, not in forming the channel, but in covering a completed stone filling where danger was to be apprehended from quick-sand, and we have discovered that only the most durable wood will remain long undecayed in such a position. It is true that wood buried two or three feet under the surface of the earth, and completely excluded from air by close packing, will last a very long time; but in the case of underdrains, it must not be forgotten that air is admitted in the channel left for the water. This air is both damp and confined—in the very worst condition for the continuance of soundness in the wood in contact. Builders are familiar with the fact that a tight floor, laid a foot or two from the ground, with an air-tight underpinning, decays in a very few years, from want of ventilation.

We have taken up portions of ditches, laid with slabs on a previously completed channel and bed of stone, as above mentioned, after they had remained only four or five years,—and with the exception of the most durable kinds of wood, all the lower part of the wood, next to the stone, was completely decayed. The upper portion, in contact with the compact earth, was quite sound. There being a stone channel besides, the decay of the wood in this instance is not of much detriment.

Brush drains have often lasted many years. Here the brush forms a multitude of small seams through which the water soaks away, and after decay these remain—such drains being only adapted to small quantities of water.

Tile is the best material; and a constantly increasing and re-acting demand and supply will gradually introduce its manufacture throughout the country.

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Inspection of Guano.—We perceive that the Union Ag. Society of Virginia and North Carolina, is about to petition the General Assembly of Virginia to repeal the law for the inspection of guano. What is the trouble?

Experiments with Potatoes.

Mr. Tucker—Seeing an account of experiments with potatoes in some of the last issues of the Country Gentleman, I am induced to give you one or two that have come within my knowledge.

First—Wm. R. Tanner, Esq., of Medusa, in this county, whom I supplied with a peck of seed last spring, informed me a few days since, that the yield was 16½ bushels. He did not state the method of cultivation.

Second—J. M. Hallock of the same place, who also obtained a peck of seed from me, informed in September, that he had dug them, and the yield was 14½ bushels. His were planted on a gravelly soil, which a few years since received a good supply of muck or creek mud; the potatoes were cut, and one piece put in a hill, with a handful of compost, consisting mostly of hen manure; were never plowed, but the weeds were kept down by careful hoeing, as we do carrots or turnips. They were dug about the last of August, and suffered to lie on the ground a considerable time, and then put in barrels and boxes in his cellar. When I saw them, some time in September, they were the finest lot I ever saw; some three bushels would average from 7½ to 9½ inches in length. Some few went up to 10¼ inches. There was about three-fourths of a bushel of small sized ones, which he considered too small for cooking, and which he had selected for seed. Mr. H. informed me that he had a curiosity from the extraordinary yield, to count the tubers in a hill. The result was *eighty-two* in *one* hill. From *his early digging*, not one has been affected by the rot, which is so prevalent in this vicinity.

The next one (and I will make it the last,) is contained in a letter from the town of Fairview, Jones Co., Iowa, dated Sept. 15, 1855, from S. G. Matson, Esq. The extract is as follows:

"I received yours of March 20th; also the tin box containing the potatoes, for all of which you have my sincere thanks. I will comply with your lady's request to let you know what success I have had in cultivating this fine vegetable. I planted them late and under unfavorable circumstances, they being very dry and shriveled up. They were planted by the side of other potatoes, on ground that had been very highly manured with leached ashes—the same ground that two years since raised 400 bushels to the acre; but this year on account of the drouth, I did not get one-fourth as much. The Strawberry potatoes received *no more* attention than the others, and had only one shriveled-up eye in a place, while the other kind was planted with a plenty of good seed, and yet the Strawberry potatoes yielded more than twice as much as the other variety right by its side. I had *one bushel and a half* from the 12 ounces, box and all, that you sent by mail. They are beautiful potatoes, but not as large as you raise them, none of them measuring more than 7 or 8 inches in length."

The remainder of the letter is highly interesting, as also many more that I have already received. Let who beat these that can. G. W. Durant. *Rensselaerville, N. Y.*

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Potatoes Planted in Wood Ashes.

Messrs. Eds.—About the middle of April, plant them in rows about two feet apart, and about two feet apart in each row—plant the sets whole, putting about two handsful of wood ashes with each set. Hoe them deep and well. The best and largest yield I have seen this season, were grown in this way—soil generally light and sandy. Mr. W. Shaw's averaged about 28 to each set, some of the potatoes weighing over 16 ounces. P. Sidebotham.

The Register of Rural Affairs.

Our offer of five copies of the Annual Register for 1856, post-paid, for One Dollar, has called out far more orders of this kind than we had reason to anticipate. Any one can sell *four* and thus obtain his own copy for nothing, or it may be found a still easier method, by the benevolently inclined, to *give away* what they do not wish to reserve for themselves and children.

A letter occasionally comes, odering the Register for 1855, "*if we have it.*" We wish to inform all interested that we *have* it, and are constantly selling it, and that the demand for it, promises to be, according to its deserts, a permanent one, and that we offer it precisely on the same terms as that for 1856, while both together may be ordered, in any proportion, at the price of either by itself.

☞ Please specify in ordering which is desired the Register for 1855, *or* 1856?

☞ We give below one or two extracts from notices of Number Two, preceded by the unrequested and impartial opinions of a distinguished horticulturist in western New-York, himself both a large cultivator and successful author. He writes:

> "Your "Register," this year possesses more intrinsic excellence, and is arranged and executed with more taste, than anything of the kind, I have ever seen *in any country*."

The Homestead, the new Connecticut Agricultural weekly, says:

> "It contains, aside from the Almanac proper, more than 100 pages of interesting and useful agricultural and horticultural matter, very fully and tastefully illustrated. The amount of valuable matter condensed in this little volume is remarkable. The article upon country houses, barns, carriage houses, stables, poultry houses, etc., is particularly valuable. We commend it cordially to all our readers."

The Editor of the *Boston Cultivator* speaks of it as follows:

> "This little work comprises a great amount of useful information. The author is well known as an intelligent horticulturist, and at the same time well versed in the science and practice of rural affairs, generally. The plans of buildings furnish many good suggestions, and the illustrations and descriptions of fruits are accurate and reliable. The work is very neatly executed."

The *Buffalo Courier* remarks in the course of quite an extended notice:

> "The articles are in the main from the practiced pen of J. J. Thomas, Macedon, whose name is familiar as "household words" to the farmers of the state, and a sufficient guarantee for the character of the work. Issuing, too, from the Publication office of Luther Tucker & Son, no one need be assured that the Register is a publication worthy of a place in the house of every farmer in the land. It is the intention of the publishers to continue this hand-book of rural affairs from year to year, and the series will contain in a compact form more that is valuable to the country resident than any other similar work or agricultural journal before the public."

The above will suffice for the present. We desire to acknowledge our indebtedness for many other highly flattering notices, for which we cannot now make room.

A Peculiarity of the past Summer, and a Peculiar Work for this Winter.

The past summer has been an uncommonly wet one. One of the results or consequences of this peculiar wetness has been a more than usual growth of grass and herbage of all kinds. In some spots the growth of grass was so luxuriant, and the soil so constantly saturated with water, that there came upon the surface of the ground a covering of white mold. And on all kinds of soil the growth was so abundant as to make pastures watery and flashy.

Horses allowed to feed in pastures were very generally attacked with slavering early in the summer. So excessive was this slavering that many shut up their horses in the stable and fed them with hay. Those horses which were allowed to stay long at pasture got very thin in flesh, and greatly reduced in vigor and ability to endure fatigue.

Not only horses, but also cows, cattle and sheep were here and there affected with this slavering and its consequences. Cows got poor, did not do well, and failed to give their usual quantity of milk. Sheep we have seen slavering this year, which is a sight we never saw before. And almost everywhere we have heard complaints that sheep did not do well though having a wide range of pasture. Having recently butchered a few sheep we were to some extent surprised at the small amount of tallow. The mutton was in fair order but there was a very small quantity of tallow. On inquiry of others we found that they had met with a similar state of matters in their flocks.

Now this state of things so far as it prevails, and it prevails very extensively, calls for a more than usual carefulness to provide good feed and good shelter for our stock during the coming winter. Sheep and other stock are not so fat, nor in as good condition as usual, at the commencement of winter. Good managers will, therefore, see that their animals do not get down poor by going too long without feeding and housing, or without a due provision of shelter. In addition to all the arguments in force at *all* times in favor of providing abundance of food and shelter for animals during the winter, there is an an additional one this year arising from the want of good condition, which has been the consequence of flashy and innutritious pastures. Poor managers will be likely to let their sheep and other stock be out as long as they can get even bare picking, and the consequence of this will probably be the loss of some of their stock during the winter, or of ewes and lambs in the spring.

Some farmers are beginning to find that the hay gathered this year, not only clover hay, but even that which contains only a small admixture of clover, produces slavering in their horses about as much as when in the green state in summer. If almost all hay of this kind acts in this way, not only on horses, but also on cattle, cows and sheep, it will be a difficult matter to carry them safely and comfortably through the winter. All means of cure, suggested by Dr. Dadd in his 'Horse-Doctor,' have been tried in one case of a horse in vain. Even when the horse has hay but once a day, and cut straw with grain during the rest of the time, slavering is pretty abundantly produced. What are farmers and others having horses to do when they find their supply of hay for the winter, or at least a great share of it, produces this debilitating complaint? If any of the readers of this should *know* of any *effectual* means of preventing or curing slavering caused by the hay of this year, he will confer a great favor by making it public. OBS.

On Wintering Domestic Animals.

There is no great amount of labor to be done out of doors in this climate, during December. The most important labor of the farmer now, is the care of his domestic animals, to see that they be well sheltered from cold and wet, and properly fed and watered. The year's profit or loss, of the farmer depends greatly upon the manner in which he winters his stock. The milk of the ensuing season, the wool, and the ability for labor, all depend in a great measure upon the care the farmer gives his cattle, sheep and horses, during the winter. THE CULTIVATOR, some years since, most truly said—"If there is one truth respecting animals more deserving of remembrance than another, it is that the animal, entering the winter months in high condition, is already half wintered—that is, the care and food required to bring him out well and hearty in the spring will not be one half as much as will be required by the one that commences the winter spring-poor. A fat strong animal, will be warm and comfortable where a poor weak one can hardly live, and the hearty vigorous one will digest and assimilate food which the weak one would scarcely taste."

Regular hours for attending to all matters, is important, but in no department of the farmer's business is it more important than in milking cows, foddering or feeding, watering and carding stock. Cattle should be fed often, and but little at a time,—say four times in the twenty-four hours, will keep cattle in better condition and at less expense than to feed but twice a day, being careful never to give them so much at a time that they will leave their feed before it is all consumed.

Cattle thrive better when their dormitories are kept clean and freely littered with dry leaves or straw, being mindful not to forget the frequent use of the card and currycomb. Cattle, horses and sheep, should have salt where they can have access to it whenever they desire it. A gentleman informed me that some years since he lost many horses annually, but since he commenced to salt his horses three times a week, or feeding on salt hay, he has lost none.

Sprinkling hay with salt dissolved in water, or salting hay too freely, is injurious, as over salting diminishes the nutriment, and weakens and keeps the animals too loose; but when they have free access to use or not, they are not apt to take more than nature requires.

Cutting provender, corn stalks, straw or coarse hay, is a great saving. When cut, it is all eaten; there is no loss of material. A good milch cow will tell her milker a good story when well supplied with chopped corn stalks, or rye or oat straw, wet and well powdered with corn ground with the cob or wheat shorts or buckwheat bran, and a little powdered oil cake. My cows increased their milk and flesh and my sheep improved last winter, by Col. JAQUE's mixture, which was two bushels of turnips cut fine, one bushel wheat bran, half a bushel powdered oil cake, with seven bushels cut hay, wet with ten gallons water—the mixture well stirred and intermixed, giving them as much as they would eat of it thrice a day, and once a day a feed of good English hay, with a tub of soft clean water to which they had access as often as they chose. S. *Plymouth, Ct.*

Notes for the Month.

REMOVAL.—C. M. SAXTON & Co., our Agents in New-York, desire to announce to the readers of the COUNTRY GENTLEMAN and THE CULTIVATOR, especially those who receive these journals through their hands, that after the 1st of December, they will be found in their new and eligible apartments at *No. 140 Fulton Street*, where they will continue to receive subscriptions and deliver to city subscribers as heretofore. They have also opened a Farmers' Reading Room, where will be kept on file for convenient reference, all the journals published in the United States, and the principal periodicals of Europe relating to agriculture and horticulture. They invite farmers generally to make this a place of unceremonious resort whenever they visit New-York; and they will be happy to furnish those at a distance with their catalogue of Agricultural Works on application.

CHEMICAL NONSENSE.—A recent writer in the *Ohio Farmer* exclaims:

> Now, if cattle are kept on land destitute of lime, or its phospates, how are they to obtain material for bones from the food?

It is true that food destitute of phosphates cannot supply cattle with the necessary material to form bones. But then, *no such food is ever grown.* "Land destitute of lime, or its phosphates," will not produce a spear of grass or clover, or of any other plant used as food; so that it would be impossible to keep cattle on such land. We have no doubt, therefore, that however deficient the soil may be in phosphates, the Ohio cattle will continue to have quite as much *bone* in them as we eastern beef eaters require. Seriously, it is time such nonsense was expunged from our agricultural literature. A soil deficient in prosphates will produce a deficient crop; a soil rich in phosphates may produce a very large crop; but the *proportion* of phosphates would be the same in both crops.

MEXICAN POTATO.—We have received from I. W. BRIGGS, Esq., P. M. at West Macedon, Wayne Co., a lot of this potato. It is of a "lady-finger" form, with white skin, and attractive appearance. Mr. B. considers it excellent for all eating purposes, especially baking; and we have found his recommendation, as to its delicacy, which is perhaps its best quality, borne out on trial. It requires but little, and that careful cooking.

☞ Those in want of superior Short Horn Cattle, or Berkshire Pigs, are referred to the advertisements of S P. CHAPMAN, Esq., of Clockville, and Hon. WM. KELLY, of Rhinebeck. Also to that of Dr. WENDELL of this city.

THE OHIO CULTIVATOR.—This excellent agricultural paper has been purchased by Mr. S. D. HARRIS, who has had the office charge of the paper, and been associated with Mr. BATEHAM in its editorial management for the last five years. Mr. HARRIS is an able, practical writer, fearless in his exposure of the "scientific" humbugs so rife in the agricultural literature of the day, but a true, energetic friend to real progress in rural economy.

PLOWING BY STEAM.—That veteran inventor, OBED HUSSEY, to whom, we believe, the honor of having invented the first effective Reaping and Mowing Machine belongs, is still at work. He has constructed a Steam Plowing Machine, which was tried at the late Fair of the Maryland Agricultural Society. The machine steamed to the field, a distance of 2½ miles. Arrived there, four large turf plows were attached to it, with which it moved off, throwing up furrows each about fourteen inches deep. The Baltimore *Commercial Advertiser* says "the work was well done, and it was the opinion of many farmers present, that it was admirably adapted to the breaking up of prairie land." The Society awarded Mr. HUSSEY, for steam plow, the highest premium and a diploma. We hope yet to see the day when the soil shall be pulverized and cleaned by steam.

THE VALLEY FARMER.—This paper, which has been published at Amherst, Mass., the past year, by our friend, Prof. NASH, has been merged in the *New-England Farmer*, published at Boston, and edited by Lieut. Gov. BROWN. We perceive by a statement in the last No. of the Valley Farmer, that the income has not at any time since its first establishment at Springfield, been sufficient to meet its expenses. It became necessary, therefore, to make some disposition of it, and we rejoice that its subscription has been united to a work so worthy the confidence of the farmers of our country, as that of the N. E. Farmer, and that its value is hereafter to be increased by the contributions of Prof. NASH.

The history of the *Valley Farmer*, as given by Prof. NASH, is similar to that of a dozen other agricultural journals which have been established within a few years past, and of some forty or fifty which have been started since our connection with the agricultural press. From the success which has attended some half a dozen of these papers, many persons seem to suppose that it is only necessary to start an agricultural journal, to secure at once, not only the means of living, but of acquiring wealth, and yet we may safely assert, that not one in ten of the agricultural journals which have been published in this country, have ever received an equivalent for the labor and money expended upon them. We think we could enumerate at least forty which have struggled, some for a longer and some for a shorter period, for an existence, but have finally died for want of support; and yet we see new efforts continually making, in spite of these admonitory lessons, to establish new journals, most of which, as certainly as those which have gone before them, will in the course of a year or two be numbered among the departed. We should be glad to see all these efforts succeed; but the fact is undeniable that there is little chance for success without some thousands of capital to invest, and a degree of industry and perseverance which is rarely brought to this kind of work.

SHEEP AND SWINE FOR NEW-BRUNSWICK.—We learn from the *Boston Cultivator*, that J. H. Reid, the Agent of the York County (N. B.,) Ag. Society, has purchased from L. G. Morris some of his superior South Down Ewes, and the yearling ram which took the first premium at the late Fair of the U. S. Ag. Society. He also purchased the imported Suffolk boar, "Lord Wenlock," and two sows of the same breed from Mr. MORRIS. He also purchased an imported Suffolk sow and two young sows from Messrs. JOSIAH and ISAAC STICKNEY of Boston. We congratulate the enterprising Society on the purchase of this stock—there is no better in this country or in England.

PREMIUMS TO AMERICANS AT THE PARIS EXHIBITION.—Three "Grand Medals of Honor," came to this country—one to Mr. M'CORMICK, Chicago, for his Reaper—one to J A PITTS, Buffalo, for Straw Cutter and Threshing Machine, and one to Mr. GOODYEAR, for his Indian Rubber inventions. Also eleven "first class medals"—one of which is to D KING, Albany, for model of a river steamer. Of second class medals, 12 come to this country, and "honorable mention" is made of the articles of about 20 other exhibitors.

VALUE OF LEAVES.—Payen and Boussingault give analyses of leaves from several different trees. Taking the average of all their analyses, leaves contain 1.13 per cent of nitrogen, together with a large amount of mineral and carbonaceous matter, Common barnyard dung, according to the same able chemists, contain

0.41 per cent. of nitrogen, and we may confidently assert that leaves are worth, therefore, three times as much as common barn-yard manure. Every good gardener makes them into a compost with weeds and other rubbish of the garden or orchard.

THE NEW-JERSEY FARMER.—We have received nos. 1 and 2 of this journal, published monthly at Freehold, at $1 a year. It is edited by ORRIN PHARO, and gives promise of being a valuable addition to our agricultural papers.

THE HORTICULTURIST.—Horticulturists will not fail to observe the prospectus for a new volume of this work now published at Philadelphia We will forward the subscriptions of any of our friends who may desire it, with pleasure; and we have made such arrangements with the publisher, as will enable us to furnish those who wish both it and the COUNTRY GENTLEMAN, with the two works for $3. At this reduced club price for them, a large number will doubtless take the opportunity to subscribe.

THE YEAR-BOOK OF AGRICULTURE.—The favor with which the reading public has received for some years, the "Annual of Scientific Discovery," has induced its Editor, DAVID A. WELLS, to prepare a similar Annual of *Agricultural* Progress and Discovery, entitled "The Year-Book of Agriculture." The idea is a good one; such a work is greatly needed. The first volume for 1855—6, has just been issued. It contains 400 pages. We have first, a short sketch of the life of the late A. J. DOWNING, with a portrait, engraved on steel, and given by us in the November number of the *Horticulturist* for 1852. Next we have a "Review by the Editor, of the Progress and Prospects of Agriculture," occupying 14 pages. It was evidently written in great haste, and it seems to us that Mr. WELLS has hardly done himself or his subject justice. He has rapidly passed over the vast field of American and European Agriculture, and noted down, here and there, some prominent object of Progress, but the hidden springs of agricultural improvement have been entirely overlooked. If anything has been done, or is now doing, to throw light on the *principles* of agriculture, it has been unobserved by the reviewer. Many careful experiments on feeding cattle, sheep and swine, have recently been made in Europe—many experiments with various artificial fertilizers, but nothing is said about them. We are now expending from ten to fifteen millions of dollars per annum in guano and other manures,—in many parts of the country it is the grand feature of our agricultural progress; but there is no allusion to the subject. Speaking of the Experimental Farm at Petersburg, Va., the reviewer says: "Thirty acres were seeded with various kinds of oats, and treated with different manures, and in various quantities. The results will be found in the present volume, department of Agricultural Chemistry." On turning to the place indicated, we found that the editor had helped himself to our extracts (he is quite welcome to them,) from these experiments, giving only such as we gave, with this difference, that whereas we informed the readers of the Country Gentleman, that the "Chilian guano," of which 183 lbs. produced only 25 bushels of oats per acre, while on land adjoining 100 lbs. of Peruvian guano produced 52 bushels per acre, was a compound of sugar scum, salt, plaster, &c. The readers of the *Year-Book of Agriculture* are left to suppose it to be genuine Chilian guano!

Following this review of the progress of agriculture, we have 114 pages devoted to "Agricultural Mechanics and Rural Economy." They are occupied principally with articles taken from our current agricultural literature, selected generally with good judgment. The next 84 pages are devoted to "Agricultural Chemistry and Zoology," followed by 10 pages on "Meteorology," 60 pages on "Agricultural Botany," 50 pages on "Horticulture," and 34 on "Agricultural Zoology." The whole consisting of nothing more nor less than articles scissored from our agricultural papers, with here and there one from a foreign journal. Except the Review there is scarcely a page of original matter in the book.

We make these remarks with no unkind feelings towards the author. We can understand the difficulties under which he labored in getting out his first volume. But though the book is perhaps all, or more than we should expect under the circumstances, yet Truth compels us to say it falls far short of what a work of this kind ought to be, and of what we have no doubt Mr. WELLS will make the succeeding volumes.

MEXICAN AND PERUVIAN GUANO.—The Rev. WM. CLIFT gives the result of an experiment made by him in Stonington, Ct., with Mexican and Peruvian guano for wheat. The Mexican he says was "no where," while the Peruvian had a very beneficial effect—just what we should expect.

MARYLAND STATE AG. SOCIETY.—At the annual meeting of this Society, held during its late State Fair, JAMES T. EARLE, Esq, was unanimously re-elected President; JAS. M'HENRY, Cor. and SAMUEL SANDS, Rec. SEC'Y; ROBERT BOWIE, Treas, with a Vice President and Curator for each county in the state.

DIOSCOREA BATATAS.—Mr. DINGWALL of this city has shown us a root of this new Chinese potato, raised by him the past season. The plant was a very small one, and was not planted till the 16th of June. We saw it while growing; the stem was some six feet high, and twisted round a pole like a Lima bean. The tubers do not differ materially in appearance from a dahlia; their flesh is white, and somewhat more brittle than a potato, but exceedingly mucilaginous, a fresh cut piece adhering with considerable force to the fingers. In its uncooked state it is not unpleasant to the taste, but is almost destitute of flavor. The plant grown by Mr. D. had three tubers adhering to the stem, which would weigh perhaps five or six ounces.

SOUTH DOWN SHEEP FOR THE WEST.—Col. LEWIS G. MORRIS has recently sent by express, six of his celebrated South Down ewes to Hon JOHN WENTWORTH of Chicago. for the farm of the Illinois Breeding Association at Summit, Cook Co., where great attention is being paid to the breeding of thorough-bred French Merinos and South Downs. Three of the ewes were imported by Col. M. from the flock of the celebrated Jonas Webb of England, and three were bred from his imported stock, and all were in lamb by his buck "Young York," that has taken the premium at the State Fair in New-York and at the recent National Fair in Boston.

Mr. THOMAS GOULD of Aurora, has just added to his herd, two fine two-year-old Short-Horn heifers, Fillpail Lass 3d and Omen, purchased of Mr. Thorne of Thorndale, Washington Hollow. They are to be put to Mr. T.'s newly imported bulls—one to Second Grand Duke and the other to Neptune. Mr. Gould is selling off his Devons, as he proposes to keep only Short-Horns hereafter. [See his advertisement.]

LARGE STEERS.—A pair of Durham Steers, raised by Mr. A. M. Winslow of Putney, Vt., which received the first prize at the Windsor Co. Fair, and at the Vermont State Fair, were exhibited at the United States Fair at Boston, where they also received a prize of $25. They were two years old last spring, and weighed 3380 lbs. Col. WILLIS of Pittsfield, Mass., purchased Mr. Winslow's steers at $250, and has since bought another pair of yearlings of Mr. Winslow at $150, which are considered more promising than the others.

J. I. J., Cincinnati.—Your question will be answered soon, in this paper.

CANADA SHORT-HORNS.—Breeders of Short-horns are referred to the advertisement of Mr. WADE of Cobourg, C. W., in this paper. Mr. W. we believe, is an extensive importer of short-horns, and our breeders may find it for their interest to visit his herd. His imported bull "Sir Charles Napier," is from one of the best breeders in England, and was got by a bull of unequalled success as a winner of high prizes.

Excelsior Ag. Works, Ware House and Seed Store,

Old stand, 369 and 371 Broadway, Albany, N. Y.

RICHARD H. PEASE. PROPRIETOR.

THE Excelsior Horse Power, Thresher and Separator.
do do Saw Mill.
do do Cider Mill, Improved, Kraus's Patent,
do do Cross Cut Saw arrangements.
do do Corn and Cob Grinder,

with a very full and complete assortment of Hay Cutters, Corn Shellers, Corn Stalk Cutters, Sausage Meat Cutters and Stuffers, and every other implement a farmer needs. The Seed Department is complete, and is attended by a man experienced in the business for the last seven years. For further information apply as above.

☞ A Descriptive Pamphlet sent by mail gratis, if desired.
Dec. 20—w4tm1t

Chicago Agricultural Warehouse and Seed Store.

Warehouse and Sale Room 45 Franklin Street, between John and Randolph Streets.

THE subscriber, formerly connected with the "*Albany Agricultural Works, Albany, N. Y.*," has opened a Depot in Chicago, where may be found at all times a complete assortment of

FARM MACHINERY AND IMPLEMENTS,

of most approved kinds—also a full stock of

GARDEN AND FIELD SEEDS.

Full catalogues furnished gratis on application.
Dec. 13—w4tm2t HENRY D. EMERY.

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AND
PRODUCE COMMISSION WAREHOUSE,

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Between West and Washington Streets, New-York.

THE subscriber having opened an establishment in the above named locality, for the transaction of General Agricultural Business, respectfully invites the attention of Farmers and others to the advantages proposed. He will attend to the sale of

Hay, Grain, or any other kind of Farm Produce,

that may be consigned to him by Railroad, Steamboat, &c., from any portion of the country. His charges for commissions, &c., will be moderate; and prompt returns will be made, in such form as his correspondents may direct; and he trusts that the convenience of a General Depot for the Sale of Produce, affording ample time for judicious sales and preventing any hasty disposal of property, may procure for him the Consignments of Agriculturists.

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Agricultural Implements and Farming Utensils,

Of all kinds and of the most approved manufacture; also a supply of the best kinds of

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Both American and Foreign; also first quality of

Peruvian Guano, Phosphate of Lime and other Portable Manures,

All of which will be sold on the most reasonable terms, and carefully packed and forwarded to any part of the country.
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G. B. LAMAR, Esq.
Messrs. HENRY SHELDEN, LAWSON & Co
VANDUSEN & JAGGER.
H. E. DIBBLEE & Co.
DIBBLEE, WORK & MOORE. Dec. 6—w4tm1t*

SHORT HORN BULLS.

THE subscriber offers for sale at moderate prices, the following named Short-Horn Bulls. They are all superior animals; for their pedigrees reference may be had to the Second Volume of the American Herd Book:

DEFIANCE—Red with white marks—calved May 8th, 1854.
BARRISTER—Red with white marks—calved May 3d, 1854.
LENOX—Roan and white—calved May 4th, 1854.

WILLIAM KELLY,
Ellerslie, near Rhinebeck, Dutchess County, N. Y.
Nov. 22—w4tm2t.

Devons, Suffolks and Rabbits.

I NOW have for sale three Devon Bulls:—"Holkham," 3 years old,—Fordham, 1 year old,—Detention, 2 months old.

Three Devon Heifers:—"Venus," 5 years old,—Cherry, 3 years old,—"Fanny Fern," 8 months old.

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Also two SUFFOLK BOARS and four Suffolk Sows, five months old.

And ten pairs Madagascar or LOP-EARED RABBITS, nearly full-grown.
THOS. GOULD.
Dec. 13—w3tm1t Aurora, Cayuga Co., N. Y.

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HAMPTON—560 A H. B.—Roan, calved Sept. 22d, 1854. Got by the celebrated prize Bates Bull Meteor, (11811) 102, out of Matchless by Ringgold 908—Ringlet by imported Bates Bull Duke of Wellington (3654,) &c., &c. See No. 560 A. H. B. Price $100.

2ND METEOR—956 A. H. B.—White, calved Oct. 8th. 1854. Got by Bates Bull Meteor (11811) out of imported Lady Liverpool by Mr. Bates' 3d Duke of York (10166)—Lilly by 2nd Duke of Oxford (9066)—Harmless by Cleveland Lad (3407) &c., &c. See No. 956 A. H. B Price $150

DERBY, 414—Red and white, calved Nov. 27th, 1854, got by imported Bates Bull LORD DUCIE (13,181) 662, out of Lady Bird by Bates Bull Eclipse, 466—Fillpail by Ajax (2944,) &c. &c.—see No. 414 A. H. B. Price, $125.

EARL CARLYLE—Roan, calved, Sept. 3d. 1855, got by imported Bates Bull Lord Ducie (13,181) 662 out of Duchess of Exeter by imported Princess Bull Duke of Exeter (10152) &c. &c.—see A. H. B., 2d vol., page 358. Price, $100.

DUKE OF CLARENCE—Red roan, calved Sept 7. 1855, got by imported Bates Bull Lord Ducie (13,181) 662, out of Daisy 7th, by Duke 442—Daisy 4th by celebrated Wildame Bull Prince 841, &c &c.—see A. H. B., page 347 Price, $100.

The above prices are at least 100 per cent. less than animals of *equal value* can be purchased for otherwheres in this country.

P. S If desired, I will spare a few Females at favorable prices. Address DR. HERMAN WENDELL,
Nov. 29—w6tm2t Albany, N. Y.

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Patent Portable Horse Powers,

THRESHERS, Separators, Saw Mills, Corn Shellers, Feed Cutters, &c, for sale at 45 Franklin Street, Chicago, Ill. HENRY D. EMERY.
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Dec. 20—w2tm1t

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Nov. 15—w4tm1t.

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Nov. 29—w1tm1t* R S.

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May 24—m12t*

ICHABOE GUANO.

JUST RECEIVED by the brig Wave Spirit, direct from the Ichaboe Islands, a cargo of this superior Guano, (which is the first cargo arrived, since that brought by the ship Shakspeare in 1845.) This guano is now landed in excellent order, will be sold in lots to suit purchasers. Samples and analysis will be sent by addressing the Agent. As the quantity is small, early application will be necessary. Farmers who cannot remove what they desire, may have it remain on storage until April 1st, at 18¾ cts. per ton per month which includes Insurance.

Price $40 per ton of 2000 lbs.

A. LONGETT, Agent,
34 Cliff St., Corner of Fulton,
Nov. 1—w&mtf. New-York.

SHEEP BOOK.

THE Breeds, Management, Structure and Diseases of the Sheep, with Illustrative Engravings and an Appendix. By Henry J. Canfield of Ohio—for sale at the office of this paper—price $1 00.

DE BURG'S NO. 1

Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c.

C. B. DE BURG,
Sole Proprietor and Manufacturer,
June 14—w&mtf. Williamsburg, L. I.

Isabella and Catawba Grape Vines.

OF PROPER age for forming Vineyards, cultivated from and containing all the good qualities which the most improved cultivation for over fifteen years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north. All communications addressed to R. T. UNDERHILL, M. D., New-York, or Croton Point, Westchester County, N. Y., will receive attention. The additional experience of three past seasons, gives him full assurance that by improved cultivation, pruning, &c , a crop of good fruit can be obtained every year, in most of the Northern, all the Middle, Western and Southern States.

N. B.—To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Also, Apple Quince Trees for sale as above.

Nov. 8—w4tm2t R. T U.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

HAY PRESSES.

HAY PRESS, to press bales of 150 lbs. to 225 lbs—Price $40. Hay Press to press bales of 200 lbs. to 250 lbs.—Price $75.

The above presses are well worthy the attention of farmers For sale at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Sept. 27—w&m3m 60 Cortlandt-St., New-York.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag. Price $52 per ton of 2000 lbs.

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As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure **2** under the weight mark. For sale by

ANTOINE LONGETT,
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Oct. 11—mtf New-York.

SHORT HORNS.

THE subscribers offer for sale a few Bull and Heifer Calves, the get of "Astoria." "Lord Vane Tempest 2d," "3rd Duke of Cambridge," imported, and imported "Earl Vane"

Catalogues, with pedigrees of the animals, will be furnished upon application to J. C. JACKSON, Esq ,111 Water street, New-York, or at the farm of the subscribers at Elizabeth, New-Jersey. B. & C. S. HAINES.

Dec. 1—m3t

ENGLISH CATTLE,

Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England — 81 *Maiden Lane, New-York City.*

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
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Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

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Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane.
Jan. 4—1am—m1y. New York City.

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H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants.

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w&m1y

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4, 1821.

Weekly Edition between 80,000 and 90,000.

IN ISSUING their Prospectus for 1856. the proprietors of the Post take it for granted, that the public are already tolerably well acquainted with the character of a paper that has grown strong during the storms and sunshine of THIRTY-FOUR YEARS. Their object always has been, as it remains to be, to publish a weekly paper for the family circle, which shall not only amuse, but also instruct and improve, those who may read it. To accomplish this object, the best articles are selected or condensed from foreign and domestic periodicals, and original articles of an instructive character procured, when possible.

Letters from Foreign Lands; the most interesting portions of the Weekly News of the World; Sketches of Life, Adventure and Character; Selected and Original Articles upon Agriculture; Account of the Product and Stock Markets; and a Bank Note List are included among the solid information to be constantly found in the Post.

But the mind requires a wider range—it has faculties which delight in the humorous and lively, the imaginative and poetical. These faculties also must have their appropriate food, else they become enfeebled, and, as a consequence the intellect becomes narrow and one-sided, and is not able to take an enlarged and generous view of human nature and its destiny. To satisfy these heaven-implanted cravings of our mental being, we devote a fair proportion of the Post to FICTION, POETRY and HUMOR.

Among our contributors to the first two of the above Departments, are several of the most gifted writers in the land. We also draw freely for Fiction and Poetry upon the best periodicals in this country and Great Britain. We design commencing a New Story by MRS. SOUTHWORTH, author of "The Deserted Wife," "Miriam," &c., in our first paper of January next.

ENGRAVINGS, illustrative of important places and actions, of Agricultural and other new Inventions, with others of a Humorous, though refined character, are also freely given.

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☞ We annex a few Notices of the POST from its Exchanges:—

This is one of the few large papers filled with life and and thought, instead of lumbering trash. Its management is marked by liberality, courtesy, ability, and tact. It employs the best literary talent, and spares no pains or expense. As a family paper, one of literary and general intelligence, we cordially commend it.—*Cayuga Chief, Auburn, N. Y.*

In another column is an advertisement of the Saturday Evening Post. Our readers may rely upon it, that Deacon and Peterson will be as good as their word. So far as we can judge by years of observation, these publishers do rather more than they promise; and their paper is edited with very marked ability. It is singularly free from silly sentimentalism and bluster, but is of a healthy tone on all subjects, always moderate in language, but always mildly advocating the right. We find it one of the most generally attractive papers in our exchange.—*Saturday Visitor, Pittsburgh, Pa.*

We have heretofore spoken in high terms of the merits of the Post, as one of the best papers on our exchange list, and we regard it as one of the best literary papers to be found anywhere. Its editorials are written with ability, and take a liberal, independent, and comprehensive view of men and things.—*Star and Adv., Wrightsville, Pa.*

It is a paper of the largest size, and is edited with ability. It is highly spoken of by its readers, some of whom have clung to it for the last quarter of a century It is too well and favorably known to need lengthy commendation. It tells its own story each week, and if you send for it once, you will be very sure to do so again.—*Valley Times, Cedar Rapids, Iowa.*

It is deservedly one of the most popular public journals in the United States, combining as it does, in a literary point of view. all the interest of the best magazines, with a vast amount of general intelligence.—*Republican, Litchfield, Ct.*

It is emphatically one of the very best literary newspapers in the whole country and deserves the unparalleled success with which it has met under its present enlightened and liberal proprietorship The greater its circulation in this state, the less, probably, is our gain pecuniarily; yet we must pronounce it a most excellent journal, and worthy of the patronage of everybody. The contributors to the Post are among the finest writers in America, and the editor's articles are always characterized by truth and taste.—*Jersey Blue, Camden. N. J.*

We regard it as the best of the Philadelphia literary papers Its editorials are written with ability, and take a comprehensive view of whatever is discussed.—*Echo, Johnstown, Pa.*

The long period during which this sterling paper has been established, and its recent immense circulation, (being between 80,000 and 90.000;) are ample guarantees to all who desire an excellent paper, that they will get the worth of their money by subscribing for the Post.—*Clarion, Lockhart, Texas.*

This is one of the best family papers upon our exchange list. Its original and well selected matter is of the first order. —*North-Western Democrat, Minneapolis, Min. Ter.*

The editorial department is conducted with ability and skill, and the news department, for a weekly paper, is exceedingly full and complete. All things considered, the Post is not excelled, for family reading, by any paper that we know of.—*Gazette, Fulton, N. Y.*

This is one of the oldest weekly papers in Philadelphia. It has lived on through all weathers—adversity has tossed it, and prosperity filled its sails—and yet it is the same staunch, strong barque.—*Spectator. Oquawka, Ill.*

We are in weekly receipt of this invaluable family journal, and should feel very much at a loss without it, as we consider it the *best* literary paper now published in the United States without any exceptions.—*Democrat, Cambridge, Md.*

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (including our terms,) for their *editorial* columns, shall be *entitled* to an exchange, by sending us a marked copy of the paper containing advertisement or notice.

Dec. 1—w22,24m2t.

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Short-Horn Stock for Sale.

THE subscriber has for sale five thorough-bred Short-Horn Bulls. that will be fit for service in the spring. One of them took the First Prize, and another the Second Prize, at the late Provincial Fair at Cobourg.

These bulls were got by my imported bull. " Sir Charles Napier," bred by J. M. Hopper, Esq., Middlesboro-on-Tees, England. Sir Charles Napier was got by the famous bull " Belleville," (6778) also bred by Mr. Hopper. Belleville won the first prizes at the shows of the Royal Ag. Society of England, the Royal Irish Improvement Society, and the Highland Ag. Society of Scotland, in 1846, besides a challenge cup of 100 guineas value and quite a number of other prizes at various other shows where he was exhibited.

I have a large herd of cows and heifers, and I may say that I have taken more premiums with them than any other man in Canada. Lady Elgin. one of the four that took the Herd Premium at the Fair of the United States Ag. Society at Boston, was bred by me, and another, " Miss Belleville," is the sister of Sir Charles Napier.

Those desirous of purchasing good Durham stock. would do well to make me a visit. RALPH WADE, Jr.,
Dec. 20—w2tm2t Cobourg, C. W.

PREMIUMS TO AGENTS.

As an inducement to Agents to exert themselves to form Clubs, aside from the consciousness of the benefit they will confer upon their neighbors by placing such a journal in their hands, we offer the following list of Premiums to those who send us the largest amount of cash subscriptions to our journals for the year 1856, previous to the 10th of April next:

1. For the largest amount,. FIFTY DOLLARS.
2. For the next largest,.... FORTY-FIVE DOLLARS.
3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest,.... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLL'S.
7. For the next largest,.... TWENTY DOLLARS
8. For the next largest,.... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS.
10. For the next largest,.... FIVE DOLLARS.
11. For the TEN next largest Amounts, Each a Bound Set of the Six Quarto Volumes of the Cultivator, from 1838—1843 inclusive.
12. For the TEN next largest Amounts, Each a Volume of the Transactions N. Y. State Ag. Society for 1854.

Agents who compete for the above prizes must, in all cases, remit with their orders, at the rate of Fifty Cents for each copy of The Cultivator, and One Dollar and Fifty Cents—(the lowest club price, where ten or more copies are taken)—for each subscriber to the Country Gentleman.

RURAL PUBLICATIONS.

The Country Gentleman — A Quarto Weekly Journal of 16 pages, embracing every subject of practical interest to the Farmer and Country Resident, either in the Field or at the Fireside. New volumes commence 1st of January and July in each year. Price, $2 a year. ☞ Send for a Specimen copy.

We believe that we possess unequalled facilities for making The Country Gentleman. either as an AGRICULTURAL, HORTICULTURAL, or FAMILY JOURNAL, decidedly the best paper in the country. The labor and expense bestowed upon it are unexcelled. while its list of Practical and Scientific Contributors. both at home and abroad, is certainly unequalled by any similar Periodical.

The Cultivator — A Large Monthly Journal of 32 pages, exclusively devoted to Practical Agriculture and Horticulture, and now about to commence its Twenty-third Year. Price, Fifty Cents.

The Cultivator has been too long known in every part of the country. as TAKING THE LEAD OF ALL ITS COTEMPORARIES, to render it necessary for us to do more than call attention to its Extraordinary Cheapness, and to the fact that we propose to give this year as last, to Every Subscriber in clubs of Twenty or more. a copy of the Illustrated Annual Register of Rural Affairs, (containing 144 pages, duodecimo, and over 150 engravings,) as a NEW YEAR'S PRESENT. ☞ We offer also a list of upwards of $300 in premiums to those engaged in procuring subscribers for our publications. ☞ Send for a Specimen copy.

The Illustrated Annual Register of Rural Affairs—Being a condensed Encyclopedia of Rural Matters. issued in Yearly numbers. copiously illustrated. and got up in the best style. Price 25 cents—Bound, Fifty Cents—*Sent by mail postpaid.*

The first number of this work for 1855, has now been a year before the public, and has been received with the approbation which its Cheapness, Usefulness and Beauty, so richly deserve. No. 2 has just made its appearance; and while its contents are wholly different from those of the previous issue, we are confident that either alone, or the two together, present far more of valuable information on the numerous subjects of which they treat, than has ever before been comprised within so small a compass, embellished with such variety of illustration, and offered at so trifling a cost.

The attention of all persons interested in Rural Pursuits is invited to the above works. All communications, subscriptions and orders, should be addressed to

LUTHER TUCKER & SON,
November, 1855. Albany, N. Y.

FORBES.
VAN VRANKEN, N.Y.

THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. IV. — ALBANY, FEBRUARY, 1856. — No. II.

Experiments on Indian Corn.

ISAAC BACKUS of Canterbury, Ct., communicates to the *Homestead*, the results of some experiments with artificial manures on Indian corn. The soil on which the experiments were made was a gravelly loam sward, and plowed about the 20th of May, 1854, "in strips one rod wide, and planted, four rows to each breadth, with medium sized yellow corn." The manures used were superphosphate of lime, guano, (we presume Peruvian but it is not stated,) bones dissolved in sulphuric acid, stable manure (taken from a heap outside the barn, made from good hay fed to neat cattle, nearly free from litter, spread on the land before plowing,) leached ashes, and hog manure, (made by corn fed hogs in a covered pen, with a light plank floor, and soils from the fields used as an absorbent.) These manures were applied in 1854, and the yield of corn on the several plots ascertained. In 1855 the plots were again planted to corn, *all of them being left without manure of any kind.* The following table exhibits the results: (*For table, see next page.*)

The plot without any manure the first year gives 28 bushels of shelled corn per acre, the second year only 16 bushels. This is a great falling off, arising Mr. B. says, "from the exhaustion of the soil, and partly from the unfavorable season. Such a short, cold summer as the last (1855) does not make good ears of corn."

500 lbs. of superphosphate of lime give 18 bushels per acre more than the plot without manure, and the next year 12¾ bushels. This shows that the benefit derived from superphosphate on corn is two-thirds as great the second year as the first.

690 lbs. of guano give 22½ bushels increase the first year, and the second year 13¼ bushels. This shows, too, that guano is much more lasting in its action on corn than has generally been supposed.

16 loads of stable manure give 7½ bushels increase per acre the first year and 9¼ bushels the second year. 32 loads give 14¾ bushels increase the first year and 20¾ bushels the second. In both these cases the *increase is considerably greater the second than the first year.*

16 loads of stable manure and 200 bushels of leached ashes, give 16 bushels increase the first year and 24 bushels the second year. This uniformly greater increase from stable manure, the second year after its application, is somewhat remarkable, though perhaps it is in part attributable to the dry season of 1854.

By comparing Plot 7 with Plot 9, it will be seen that 200 bushels of leached ashes increase the yield 8½ bushels per acre the first year and 14¾ bushels the second year.

The hog manure as compared with the stable manure, gives a higher increase the first year and an increase nearly identical the second year. It is worthy of observation that the hog manure (mixed with soil and probably thoroughly decomposed,) gave considerably more increase the first than the second year, a result the reverse of that obtained with the stable manure.

The cost of producing an extra bushel of corn by the aid of these manures is shown in the last column of the table. Superphosphate of lime heads the list; the cost of producing a bushel of corn with this manure being 40 cents; with guano and superphosphate mixed, 46 cents; with guano alone 53 cents; with hog manure 65 cents; with stable manure 90 and 95 cents. The 200 bushels of leached ashes cost $12, and gave an increase of 23¼ bushels; thus making the cost of producing a bushel of corn with leached ashes about 50 cents. It must be remembered, however, that the ashes and the stable manure gave a greater yield the second than the first year, and we are warranted in presuming that should the field be planted in corn the next year, these manures will give considerably more increase than the guano and superphosphate of lime; and it is not improbable that in the end the stable manure, instead of being the most expensive, will prove to be the cheapest fertilizer.

For scientific as well as for practical reasons, we have long desired to learn the effects of a good superphosphate of lime on Indian corn. With its effect on wheat we are well acquainted. We know that although in instances where land has been so impoverished of available phosphoric acid that it will not produce five bushels of wheat per acre, an application of superphosphate of lime may increase the crop to 10 or 15 bushels per acre, and consequently be quite profitable, yet superphosphate of lime cannot be considered a good manure for wheat, for there are other and better manures that can be used with more profit, such as Peruvian guano which furnishes sufficient phosphoric acid and at the same time a large quantity

No. of plots.	Quantity and kind of Fertilizers used per acre, in 1854.	Yield per acre in 1854.	Yield per acre in 1855.	Increase of yield over the unmanured plot in 1854.	Increase of yield over the unmanured plot in 1855.	Aggregate increase in 1854-5.	Cost of manure.	Cost of producing an extra bushel of corn over the unmanured plot by the several manures.
1	No manure.	28	16	—	—	—	—	—
2	500 lbs. of superphosphate of lime,	46	28¾	18	12¾	30¾	$12 50	$0.40
3	690 lbs. of guano,	50½	29¼	22½	13¼	35¾	19.00	0.53
4	300 lbs. of superphosphate and 640 lbs. guano,	58	38¾	30	22¾	52¾	25.10	0.47
5	320 lbs. guano and 640 lbs. of dissolved bone,	51	32	23	16	39	18.40	0.47
6	1040 lbs. guano and 400 lbs. of superphosphate,	74¾	52	46¾	36	82¾	38.60	0.46
7	16 loads of stable manure,	35½	25¼	7½	9¼	16¾	16.00	0.95
8	32 do do	42¾	36¾	14¾	20¾	35½	32.00	0.90
9	16 do and 200 bushels of leached ashes,	44	40¾	16	24	40	28.00	0.70
10	16 do and 640 lbs. superphosphate,	49½	38½	21½	22½	44	32.00	0.72
11	32 do and 320 lbs. guano and 320 lbs. superphosphate,	60	43¼	32	27¼	59¼	48.00	0.81
12	Hog manure from 108 bushels of corn.	43	25¾	15	9¾	24¾	16.20	0.65

of ammonia, a substance of which no soil, impoverished of phosphoric acid, can contain sufficient for the production of good wheat crops, say 25 to 35 bushels per acre. But we do not know that such is the case with Indian corn, and hence the necessity of careful and judiciously planned experiments with pure superphosphate of lime, sulphate of ammonia, potash, soda, &c. Experiments with manures containing *all* the elements of plants, can never throw much light on the question so important to a rational system of manuring and rotation, "what particular substance or class of substances is required in the greatest proportion for this or that particular crop or class of crops." Neither will analyses of the crops answer this question. The experiments of Lawes, Boussingault and some others, in England and the Continent of Europe, enable us to answer to some extent this question as regards wheat, turnips, clover, beans, peas, tares, and barley; but of the requirements of Indian corn we are lamentably ignorant. The first judicious experiment in this direction has yet to be made on the great American cereal. We have been at the trouble to arrange in tabular form the results of Mr. Backus' experiments, but after carefully pondering over this table, we are unable to come to any satisfactory conclusion.

De Burg's superphosphate of lime, according to an analysis made by Dr. Stewart, Chemist to the Md. State Ag. Society, and published by the manufacturer in his circular, is composed as follows:

Bone Phosphate of Lime,	56.50
Super-Phosphate of Lime,	3.18
Sulphate of Lime,	2.25
Ammonia, Sulphate, Urate, and Phosphate,	16.11
Fixed Alkaline Salts, Carbonate of Lime, Organic matter, Silica, Alumina, &c.,	21.96
	100.

De Burg's Superphosphate, according to the trials made on the State Farm of Massachusetts, is a somewhat better article than Mapes', the same quantity in each case giving 42½ bushels of corn with Mapes', and 50½ with De Burg's. Mr. Backus used both articles, "but found," he says, "so little difference in the effect, that I have not encumbered the statement with the amount of each."

Assuming, then, that the guano used in the above experiments was Peruvian, and a good article; and that the superphosphate was De Burg's, and corresponded in composition to that analysed by Dr. Stewart, we think that the general results of the experiments indicate that the increase obtained is to be attributed, in great measure, to the available phosphate of lime of the manures used.

The 32 loads of stable manure used on Plot 8, contained an immense amount of carbonaceous matter, silica, potash, soda, lime, magnesia, sulphuric acid, and phosphate of lime; the increase obtained from it could not be due to the carbon, silica, potash, soda, &c., for the 690 lbs. of guano on Plot 3, which gave almost an identical increase, taking the two years together, contained no carbon, silica and sulphuric acid, and but a small quantity of potash. We are led by a comparison of these two plots, then, to the conclusion that the increase is due either to the ammonia, or the phosphate of lime, or both. But the superphosphate of lime on Plot 2, gives as great an increase in proportion to the quantity used, as the guano, while the guano contains, probably, at least eight times as much ammonia as the superphosphate; we may conclude, therefore, that the increase is not due in any great dgree, to the ammonia of the various manures used. But as an increase *is* obtained, and as it is not due to any of the ingredients of the manure except phosphate of lime, we are compelled to ascribe it to this substance.

It may be said that if the increase is due to phosphate of lime, the superphosphate of lime ought to have had a much greater effect as compared with guano. Not at all. The 500 lbs. of superphosphate on Plot 2, contained, according to the analysis of Dr. Stewart, about 16 lbs. of *soluble* phosphate of lime.* This of course would be available the first year. Little, if any, of the 277 lbs. of insoluble phosphate of lime (animal charcoal,) supplied in the superphosphate, could be taken up by the plant the first year, but a portion of it would become soluble for the next crop. The 16 lbs. of soluble phosphate of lime available the first year, would be about the quantity the 18 bushels of increase of corn obtained the first year contained, while we may reasonably conclude that of the 277 lbs. of insoluble phosphate of lime applied, enough would become soluble in the course of the next year, for the 12¾ bushels increase obtained.

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* We are much surprised that such an analysis should be published, for if it is correct, De Burg's superphosphate is a very poor article—far inferior to what we supposed it to be, and in fact, far inferior to what the ingredients used would make if sufficient sulphuric acid was used, and properly mixed with the animal charcoal. A superphosphate is valuable in proportion to the superphosphate or *soluble* phosphate of lime which it contains. In England a superphosphate is sold at retail for $30 per ton of 2000 lbs., warranted to contain 16 per cent. of *soluble* phosphate of lime. According to the analysis of Dr. Stewart, De Burg's superphosphate—said to be the best in the country—contains only a little over 3 per cent. of superphosphate of lime. If the increase produced in Mr. Backus' experiments is due to the available phosphate of lime of the manure, a *good* superphosphate at a reasonable price would be a very cheap fertilizer for corn.

The 690 lbs. of guano would probably contain 170 lbs. of phosphate of lime, and although we are unable to form any correct estimate of the proportion of this, that would become available in the course of one and two years, yet we may safely conclude that enough would become soluble to supply all that the 35¾ bushels of corn, (increase from guano in two years,) contained.

All the manures used as far as we can judge, contained as much phosphate of lime as the increase of corn obtained from them. Of no other ingredients of these manures can this be said.

The conclusion to which this train of reasoning leads, is one of vast importance to the science and practice of agriculture; as we might show did our space permit. But we fear to trust the experiments. They may have been conducted with great care, they may have been on a sufficiently large scale, and they may not, for the extent of the trial plots is not given. But admitting that the experiments are everything that could be desired in this respect, they are from the character of the manures used, incapable of demonstrating anything in regard to the manurial requirements of the corn crop; and however much we may argue ourselves into the belief, or in our own case the *hope*, that soluble phosphate of lime is a valuable manure for corn, while ammonia is not so specially needed, yet we cannot be certain that such is the case, till we have more direct evidence on the point. How long must we wait for it?

Management of a Milk-Farm.

I have some questions to ask about my own particular branch of farming. I make my staple milk, which goes to the city of Philadelphia by railroad, daily, to the hands of a man who pays me 3 cents a quart for the summer six months, and 4 cents for the winter six months. The freight *I* pay, amounting to a trifle over one-fourth of a cent per quart. What do you think of *that* for a business—the understanding being that I furnish in the winter two-thirds as much daily as in the summer? How must I make milk in the winter? And would it be likely to pay to break up sod in the summer, say immediately after harvest, and sow oats and rye, mixed, for late fall and early spring pasture? Which is better, to sow guano for a top dressing, on old natural grass fields, and save labor, or invert the sod and apply the dressing to a new sowing of clover and timothy, and all the weeds that will spring up, released from the confinement of the old turf? I speak as concerns dollars and cents. May-be you can help me to the price of a new fodder cutter, by telling me the best way. Do, and I will be as ready to oblige you some time, as you are to oblige your friend. C. P. *Paoli, Chester Co., Pa., 12th Month 12th,* 1855.

We should be glad if some of our correspondents will give their experience on the above questions. There can be no doubt that milk can be sold at the rate you mention and leave considerable profit to the producer—more, we think, as a general rule, than if butter or cheese was made.

To make milk in the winter is not difficult if you have cows which come in this fall or late in the spring, or, in fact, with any good cows that are not too far advanced in calf. It is possible, indeed, by high feeding to enable a cow heavy in calf, to produce considerable milk, but it is injurious. We have several instances in mind where cows were milked to within a few weeks of calving, and in every one of them the cows did not do well the next summer. The principal London milkmen purchase new milk cows, and then milk them as long as they give a good quantity of milk—one, two, or three, or four years—never letting them see the bull. Grains, cabbage, bran, &c., are the principal foods, and with this feed, and the mode of treatment we have mentioned, as much milk is obtained in the winter as in the summer. Of course this system is not applicable on a farm.

Having the right kind of cows, in the right condition, the best and *cheapest* feed to produce milk in winter, would be, perhaps, cut corn-stalks, per head per diem 15 lbs; shorts, 5 lbs.; oilcake, 2 lbs.; cabbage, mangold wurtzel, beets, or carrots, 30 lbs.; with what hay or straw the cow will eat in addition. If the stalks could be steamed conveniently, and the shorts and oilcake mixed with them while hot, it would be advantageous, and, we believe, economical. Hay is the best standard food for milch cows in winter, but in many places it is so high, that it cannot be profitably fed to them.

Of oats and rye for late fall and early spring pasture, we should be glad to hear from our experienced correspondents. Formerly, in England, rye was sown in the fall to a considerable extent for early spring feed for ewes and lambs—and it produced much good milk—but the practice has been pretty much given up, the rye being found to impoverish the soil to the great detriment of the following barley crop—and this, it must be remembered, even when the rye is all consumed on the land by sheep.

If your land is natural to grass, we should prefer to top-dress the meadows than to break up and re-seed. If you plow them up, do not seed them down again on the sod the first year, but take two or three hoe-crops in the interval. In this way, you will not be troubled with the "weeds" you speak of.

You will find a good feed cutter at the store of Paschall Morris & Co., corner of Seventh and Market Sts., Philadelphia.

Is Farming Profitable?

Messrs. Editors—Is farming, when rightly conducted, a *profitable* business? Do you suppose that a man with 320 acres of good rich land—say for instance in Iowa (which is probably the best farming country,) could clear over and above all of his expenses, on an average, $1000 or $1500 per year?

The above questions may appear rather singular and strange, but I want to find out about the general profits, as I think of going to farming. At present I am engaged in city as clerk, but within the last year or so have had a strong desire to go to farming. J. I. J. *Cincinnati.*

We have already, in former numbers, treated pretty fully of the subject of city clerks engaging in farming, and think it a decided change for the better. But after they have bought *improved* farms, well furnished with buildings, tools, animals, and efficient laborers, they must not be disappointed if they sink money for two or three years, until they become masters of all the practical details of the art.

Some men will grow rich where others utterly fail—it is especially so with city trade, where it has been said that on the long run, there are only five young men in a hundred that are decidedly successful—the ninety-five barely living, or more frequently entirely failing. Farming, however, has one great advantage, very few utterly fail—most gain very slowly or not at all; a small portion, as in the city, grow rich. We know a farmer of western New-York, about 40 years old, who began with little or nothing, and has now made by farming about fifty thousand dollars, and clears annually some five thousand a year from his seven-hundred acre farm.

We cannot tell the amount of money which may be made from an Iowa farm—so much depending on the cost of labor, distance to market, prices, &c. No doubt an *experienced and skillful manager* would accumulate money rapidly on the fertile western lands, where others could do nothing. Every thing depends on THE MAN, and much less on the business, provided it allows him a fair sweep for his energies.

Raising Broom Corn.

MESSRS. EDITORS—In the December number of *The Cultivator*, I notice a call from a correspondent in Ohio, for information relative to the raising of Broom Corn; also in your November issue, another correspondent wishes to know "how seed is usually cleaned from Broom Corn." My experience in this matter has not been very extensive,—but as I have raised three or four small crops of Broom Corn, (considerable quantities of which are raised in the valley of the Connecticut,) perhaps I can tell your correspondents "how to do it."

In the first place, the land on which it is proposed to plant Broom Corn, should be a rich and warm soil, such as will produce a good crop of Indian Corn; and should be prepared in the same manner, by plowing, harrowing, manuring, &c., as for the last named crop. Broom Corn should be planted as early as the soil and the weather will allow—say from the 1st to the 18th May—in rows from 3 to 3½ feet apart, and in hills from 1½ to 2 feet distant in the rows. Put about a dozen seeds in a hill, and when hoed the second time thin out so as not to leave more than about *eight* plants in a hill. As the first growth of the plants is quite slow, it is advisable to put some concentrated fertilizer (as guano, poudrette, superphosphate, or ashes) in the hill, to give the corn so early a start that the weeds shall not get too far ahead of it. The hoeing and summer culture of the crop is the same as Indian Corn.

When the heads are fully grown, and the seed nearly ripe, it is usual to "table" it,—which operation is is performed by taking hold of the stalks some four or five feet from the ground, and breaking them down so that the upper section, with the heads, shall lie in a horizontal position. In doing this, begin say with the outer row on the right side of the field, and turn the heads *in*, or to the left hand, thus going the whole length of the row; then turn about and go the other way, turning the next row also to the left, so that the heads will lie on the first. In going thus through the whole piece, each pair of rows will be tabled together, with a convenient alley or path between, in which to pass up and down at the time of harvesting. When the seed is fully ripe, (or if a severe frost is apprehended, it should be done before,) the heads or brush are to be severed from the stalks, and laid away to dry. This is done with a sharp knife, cutting off just *above* the upper joint. The brush is then carried to the shed or barn, and spread in thin layers on poles or rails, so that the air may have free circulation through it, and left to dry. Care should be taken to spread it as soon as possible after cutting, and to have it in thin layers, as it is very liable to *heat*. A small load got in just at sunset, and left on the wagon till the next morning, has been known to become so much heated as to injure it considerably. Having lain on the poles until thoroughly dry, the brush may be taken down, and the leaves stripped off, which is very easily done, if care has been taken not to cut below the upper joint. It is now ready for

CLEANING OFF THE SEED.—There are various machines for this purpose. One that I have lately been in the habit of using is very simple in construction, and performs the work so satisfactorily, that I will attempt a description. It consists of a wheel about five feet in diameter, made of two thicknesses of two inch plank, and hung in a frame precisely like a grindstone. This wheel is connected by a band with a cylinder one foot in diameter, and 14 to 16 inches in length, lying in another frame about seven feet from the first. An iron rod runs through the cylinder, projecting at one end some 12 or 14 inches, and on this end is a small wheel from four to six inches in diameter, over which the band passes. On the outer surface of the cylinder are the *teeth*, which may be made of sharp pointed spikes, with something of the shape of a thick narrow jack-knife blade, about ten inches in length, placed in rows four inches apart around the diameter, and the same distance the other way, not in squares, but diagonally, like the men on a checker-board. To use this machine to advantage, two men and a boy, or one man and two boys, are needed,—one to turn the crank of the driving wheel, and to pick up and hand the brush, and one to hold it on the cylinder. The crank, being set in motion, the operator stands behind the cylinder, and taking as much brush as he can grasp firmly in his hand, lays the tips on the cylinder, the teeth of which clean off the seed as fast as the boy can pass the brush from the heap along side. With this machine (which any joiner can make, and which I should think can not cost more than five dollars) the seed may be cleaned from five or six hundred pounds of brush in a day.

Although I have made this article longer than I intended, allow me to add, that I consider Broom Corn one of the most profitable crops that a farmer can raise. An acre of good land, properly managed, will produce, in a favorable season, from five to eight hundred pounds of brush, and from fifty to eighty bushels of seed. The seed is said to be worth as much as oats for provender, when fed separately or ground with Indian Corn; and five hundred pounds of good brush will make four hundred heavy brooms—such as will bring at the stores from $2.50 to 2.75 per dozen. Broom makers in this vicinity, will furnish handles, wire, &c., and manufacture brooms for from $5 to $6 per hundred,—or they will take the brush and "make it up at halves." Any farmer can calculate the profits. WM. STORER. *West Hartford, Ct., Dec.* 17,1855.

Ohio Apples.

MESSRS. EDITORS—I have taken the liberty of sending you by express, five or six specimens of our southern Ohio apples, of which I would be pleased to have your opinion, although I fear some of the varieties are past their prime. The Golden Russet and Belleflower are riper than they usually are at this time, attributable I suppose to the wetness of the season. T. V. PETICOLAS. *Mount Carmel, Clermont Co., Ohio.*

The apples were received in good condition. The varieties sent are Yellow Belleflower, Tulpehocken, Lady apple, White Pippin, Yellow Newtown Pippin, and Broadwell. They appear to be all true to name, except it be the Golden Russet, which if correct is so modified by a difference of locality, that we cannot decidedly pronounce on a specimen or two. The Broadwell, Lady apple, and Yellow Belleflower, are about twice the size of those varieties as grown in New-York, as we have heretofore observed in specimens from southern Ohio. The Tulpehocken, Fallawater, or Fallenwalder, as it is variously called, is not much larger than well grown specimens here. The same observation will apply to the White Pippin, a large and fair apple, of only medium quality, formerly supposed to be the Canada Reinette, but evidently quite a different fruit. The Broadwell is a fine flavored and very valuable winter sweet apple.

Preservation of Onions through Winter.

Editors of Country Gentleman.—The note of Mr. Goodrich in your paper Vol. VI, No. 22, just come to hand, in relation to the preservation of onions during the winter, brings to mind inquiries that have repeatedly been made, and which I have several times answered.

The best cultivators in this town preserve their onions in this manner:—In the first place they take care to have them well ripened and dried, before they are gathered. This is done by pulling and throwing eight or ten rows together, and allowing them to lay in the field exposed to the sun, until the tops are completely dried and withered; the juices in the meantime being settled into the bulb—which is found to be somewhat enlarged after they are pulled. They are then collected together and taken to the barn or store-house, where they are thrown in, in masses three or four feet deep. No further care is taken of them until the cold weather approaches—then some straw or stalks are thrown on to the top of the pile, and care is taken to exclude the air from abroad. In this way hundreds of bushels are preserved without being frozen, or any marks of decay. In fact, it is not thought to be worth two cents a bushel to guarantee their perfect preservation until the month of April. Without doubt Mr. G.'s mode of preservation will be effectual; but the mode above described, where a person has several hundred bushels to look after, will be attended with much less labor; and considering the reputation of the onion growers hereabouts, is worthy to be regarded. J. W. P. *South Danvers, Mass. Nov.* 30, 1855.

The Vinegar Plant.

For some time past, the vinegar plant has been used abroad as a substitute for cider vinegar, to advantage. Frequent applications have been made to us to know what it is, and whether introduced here. We cannot discover that it has been. It is exhibited in a living state in the Kew Garden museum, and is called *Mother of Vinegar*. It floats upon a liquid mixture of sugar and water, and is a minute fungus, allied to the *mucors* or *moulds*, Pencillium glaucum, of which the mycelium, or spawn, forms a tough leathery web. A bit of this thrown into the above liquid rapidly increases, induces acetous fermentation, and changes the sugar and water into good vinegar. The yeast plant, or "mother of yeast,"—a substance not so easily preserved—is also considered a Pencillium, and to its action is due the formation of yeast.

It is a well-known fact, that much of the vinegar which is sold in the shops, is either malt vinegar reduced with water, and strengthened with sulphuric acid, or acetic acid, also diluted, neither of which is very acceptable or wholesome. Under these circumstances, it will be a comfort to know that one can make his own vinegar as well as yeast, and know what is in it. Take one gallon of water, half a pound of sugar, half a pound of molasses, and boil them together for twenty minutes; when cool, add a quarter of an ounce of German yeast; put the whole into a jar, and lay the vinegar plant on the surface of the liquor. Cover the jar with paper, keeping it in a warm place, and it will produce very good and wholesome vinegar in about six weeks.

The "Vinegar Plant," to our knowledge, is used for the purpose above mentioned, in this city, in some English families, by some of whom it has doubtless been introduced into this country. The vinegar though not so sour as the best cider vinegar, is exceedingly pleasant, and unquestionably less deleterious to the human system, than that often sold. If we mistake not it takes a month only to form the vinegar fit for use.

Small Lawn Trees.

"What are the best trees for a yard or lawn of one acre—such as will not grow too large for such a place? And how planted?" *N. R.*

Taking it for granted that the planting is to *surround* the dwelling, (and not to be, as too often, placed only towards the road, leaving all other sides bleak and bare,) a leading object in our windy climate, is to shelter the grounds and house from the cold of winter. Our deciduous trees do not hold their foliage half the year, and for this reason, *evergreens* should enter largely into every planting of this kind. These should be planted densely on the sides towards the prevailing cold winds, and placed towards the boundaries, in irregular and natural belts or masses. The most rapidly growing, and one of the most beautiful, is the Norway Fir; the white pine, on favorable soils, will grow about as fast. As the latter grows to a large tree, it should be placed on the most distant points, and allowed as much room as may be practicable, that it may form a round head, instead of running up to a pole—a corner of the lot will therefore generally prove the best spot. The Hemlock, Balsam Fir, American Arbor Vitæ, White and Black Spruce, and Austrian Pine, may be introduced, and variously intermingled. Among the smaller evergreens, to be placed towards the inner side of the plantings, are the common Juniper, the Red Cedar, the Tree Box, Savin, &c.

Two or three trees of the mountain ash, placed among the darker evergreens, will afford a pleasing contrast in winter by their brilliant, scarlet berries. The deciduous trees should be placed within, but not wholly so, or be somewhat mixed through them, that there may be a natural gradation from one to the other—for which reason, some of the finer formed and most symmetrical or graceful evergreens should be occasionally placed in the inner parts of the grounds.

Among the best small deciduous trees and large shrubs, are the Horse Chestnut; Weeping, Golden-bushed, and Flowering Ash; Tartarian Honeysuckle, Large-flowering Philadelphus, Siberian Lilac, Honey Locust, Rose and Scarlet Hawthorn, Chinese White Magnolia, Cercis or Judas Tree, Cornelian Cherry, Virgilia, Laburnum, Purple Fringe, Striped Maple, and Privet.

A very comon error, which must be carefully avoided, is to dot over irregularly the whole surface of the ground, so that when the trees become large there is a *uniform* mass of confusion. Although straight lines are to be avoided, and the natural mode of planting adopted, yet there must be a *meaning* in the position of every tree. The ground must be left open or nearly unplanted in the direction of the finest objects of view, whether they be near or distant; and uninteresting or repulsive objects hid by dense evergreens.

Where shelter is no object, and where little care can be taken to keep the ground in order, a very few large or park trees, with plenty of room between them, will answer the purpose best. These may be Oaks, Black Walnuts, Elms, Maples, Catalpas, Chestnuts, and Tulip Trees. A very few of the larger evergreens may be introduced, such as the Whiie Pine, Norway Fir, &c.

Culture of the Rape Plant.

Agreeably to your request, I herewith furnish you with the results of my experience in the culture of the rape plant for the two past seasons. In the spring of 1854, I received from the Patent Office a package of rape seeds. They were sown about the 15th of June at the time of sowing Swedish turnips. The land the previous year, (1853) had been well manured and planted with field carrots and parsnips. The manure used for the rape and turnips, was guano at the rate of 300 lbs. per acre. Both kinds of plants came up well and grew finely, but the rape took the lead, altogether. As I hoed them, thinned the plants to the distance of 8 or 10 inches. Some time in August I found the plants stood too thick in the drills. I commenced cutting every other plant and feeding them to my cows, but in the course of two weeks, the plants had become so infested with lice that I abandoned them to their fate. The extreme drouth of that season and the lice killed nearly every plant before the frosts came. My Swedes and cabbage were but little better.

This year, the first week in June, I carted on to a plot of smooth grass land, warm, fresh manure, at the rate of 30 cart loads per acre, which was evenly spread, and turned under by the plow from 6 to 8 inches deep; the inverted sod was pressed down with a heavy roller, then well harrowed lengthwise the furrows; with a kind of horse rake, drills were marked out at the distance of 27 inches; a sprinkling of De Burg's superphosphate was deposited in the drills; seed sown by hand, and covered by the use of a common hay rake The plants came up in a few days and were not injured by the "fly," or "any other creature" through the season.

In July commenced thinning the plants, (and fed them to my cows, morning and evening,) till they averaged about two feet each way. This brought it up to sixty-five days from the time the land was plowed. At that time, I cut at the surface of the ground, every other plant on an average plot. The lightest plant weighed three pounds four ounces; the heaviest, nine and a quarter pounds; the whole number averaged a little over five and a half pounds per plant. There were fifty-six plants per square rod. But to be sure of not over stating, I will call it fifty plants per square rod, which gives just twenty-two tons per acre of the choicest kind of green food for cows, &c., in less than sixty-five days from the time the seed was sown. I then commenced cutting the plants, twice daily, for my cows till they were used up, (by which time I had a full supply of Early York Cabbage to succeed, as green food for my cows,) numerous sprouts sprang from the stumps which produced several tons per acre of second crop. In cutting my rape plants, they were taken off at the surface of the ground; this was wrong; the stumps, should have been left some four inches long, and then they would have produced a much larger second crop. The past season with us has been very wet and cool, perhaps much resembling the climate of England which is much more favorable to the cabbage and turnip tribes of plants than cur usually hot and dry summers.

In England and other portions of Europe, the rape plant is extensively cultivated both for green forage, and for its seed, from which large quantities of oil are extracted for illuminating purposes. The rape cake (the refuse after the oil has been expressed) is a concentrated and a valuable manure, especially for the turnip plant.

Some two years since, a quantity of rape seed was imported by the Light House Board, with the view of testing the practicability of cultivating the plant in this country for the purpose of manufacturing oil.

Large quantities of this seed are annually imported into the United States at an expense of $3 or $4 per bushel, for feeding to cage birds.

When the plant is cultivated for its seed, it is sown in August, and blossoms and perfects its seed the following summer. I am doubtful whether the plants would survive the winters here at the north. But in the latitudes where the cabbage and turnip will withstand the winters, the seed might be profitably grown.

From the results of my experiment in growing the rape plant the past season, I think most farmers would find it for their interest to cultivate it for the succulent food, which its thick, fleshy stems and leaves supply to cows, when other green fodder is scarce. Perhaps the better way would be to sow a patch as early in May as the season will admit, and one or two late sowings, in June and July.

The past summer, from the 10th of July till 10th of September, my family numbered from fourteen to eighteen persons. Eight of them boarders from Boston. I kept but two cows—milk and cream were used with the greatest freedom; yet, during the two months, we churned from four to six pounds of butter per week. The cows ran in an old wire-grass pasture, that has been grazed over eighty years—but a wheelbarrow load of the rape plant, night and morning, during the time, tells the secret of the story. Levi Bartlett.
Warner, N. H., Nov. 23, 1855.

Laborers' Cottages.

Several correspondents have carried out our suggestions, made a year or two since, in relation to farm labor, and found them valuable. So great is the drudgery of farmers' wives and daughters, where they are obliged to board a large number of hired men (to say nothing of other and more serious evils,) that we think the plan of employing married men who board at home, should be adopted, even if it costs something more. Our own experience is, that it is decidedly cheaper, as a man can always furnish his own provisions at less than another is able to do it satisfactorily. A farmer who tills about 700 acres near Pittsburgh, writes as follows:—"I have adopted the plan you suggested, and used the houses of my former tenants for this purpose, giving them house, garden, cow-pasture, wood, and team to draw it, for which I charge them one dollar per week, as long as we are mutually suited. I pay them for six months at the rate of sixteen dollars per month, and twenty per month for two months in harvest—and for the four remaining months, ten dollars per month. Half the wages are withheld till final settlement, out of which the rent is taken. I have found the system to work well, and have come to the conclusion that it will *pay*. There are some annoyances which I think I can correct in another season, such as pigs, poultry, &c." The wages paid by our correspondent are considerably less than are allowed in many other places, to good faithful hands, which are always the cheapest in the end.

Inconsistencies in Cultivation.

The disposition, habit, fashion, or other cause of neglecting the culture of fruit trees, is so common, that we fear it will be a long time before the evil is thoroughly reformed. There seems to be a very common determination to give them the *last chance*, of all cultivated crops. A row of *currants*, for example, is planted in a garden; it will indeed bear well with neglect; but an annual manuring and thinning out of old wood, would at least triple the size of the fruit, and improve its quality. The row of currants will furnish a daily supply of refreshing fruit to the table, for months together; why should its culture then be totally neglected, when a row of corn by its side of equal length, that will supply only a single feeding to a pen of swine, be most carefully manured, watched, plowed, and hoed? We have not unfrequently seen farmers, who after expending a quarter of a dollar each on a young orchard of trees and in carefully setting them out, would destroy one half by choking them with a crop of oats or clover, because they could not *afford* to lose the use of the small strip of land a few feetwide in the row, which ought to have been kept clean and cultivated. The same men would regard it as insanity to plant corn among the grass of a meadow, or in a field of oats, although the planting would not cost a hundredth part of the value of the young trees. In other cases, farmers may be seen driving their teams and plows directly over a young fifty-cent tree, tearing its bark and risking its life, in order to avoid running over an adjacent potato-hill, not worth three mills currency.

There seems to be two or three causes for this strange behavior. One is, habit, or doing so because others do. Another, is a sort of indefinite notion that trees will take care of themselves. A third is an almost total want of appreciation of the real value of trees. A volume might be written on the subject; but we can only add here in a few words, that no growing plant feels more the life-giving influence of good cultivation than young trees—the difference between good treatment and neglect often being as great as *twenty to one*, as shown by the actual measurement of the growth. A single acre of well chosen trees, has produced fruit for a regular family-supply for months together, that has saved in provisions, to say nothing of increased health, at least ten times as much as some would raise from the same acre in ordinary farm crops: and we could cite several cases where a five or six acre orchard has brought a larger return of money than all other sales from a hundred acre farm.

◆

Black Knot.

This excrescence on the plum, if kept *constantly* cut off, has been found by good cultivators, to give very little trouble, besides the vigilance required in watching for it. We have discovered that in *every instance* where the remedy has failed, it has been either left till the disease had first made considerable progress, or else the knots had sometimes been allowed to remain for weeks or even months together before a thorough excision was made. With good cultivation, to keep the trees thrifty, they will soon outgrow any amount of lopping they may receive; and as we have before observed, a solution of chloride of lime will destroy the poison of the disease where a wound has been made, and prevent its bursting out again.

We make these remarks at the present time, because during the season of foliage, some of the excrescences often escape observation, and they should now be all carefully removed, as they may be so easily seen—and prevent the circulation of the poison or disease through the sap.

Bloody Murrain in Cattle.

Messrs. Editors—In your paper of Nov. 29th, I noticed inquiry by J. M. Jessup of this state, in rerelation to the bloody murrain. Having had some experience in this disease, or rather having formerly lost a number of cattle by it, I think I am somewhat prepared to venture a few opinions and suggestions in regard to it. It has been supposed by some that the disease is occasioned by the animals swallowing leeches with their drink, and some have affirmed that they have, on a post mortem examination, found them attached to the stomach or intestines of the animals. But I have examined a number of cattle of my own, that have died with this disease, and could never discover any thing of the kind. I am fully convinced that it is caused by the kind of food the animal gets, as suggested by your correspondent—whether by one or more vegetable products, I am unable to say.

When this section of the country was new, and cattle lived almost wholly on the wild grasses and other indigenous products, to hear of their dying of murrain was an almost daily occurrence. But as soon as the farmers began to have "tame feed," as the term was, the murrain was less frequent; and now it is a rare thing to hear of a case.

"As to remedies," I have tried them, to no purpose. The real remedy consists in prevention. Let me say to your correspondent—give your cattle good timothy; redtop, red or white clover, and plenty of salt and ashes, (two parts of the former, to one of the latter,) twice a week, and not allow them wild food, and they will no longer be troubled with murrain. B. J. Harvey. *Adrian, Lenawee Co., Mich.*

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Profits of Potato Raising.

In the year 1855, a piece of ground, measuring 128 rods, or a little more than three-fourths of an acre, was planted with potatoes. The soil was a sandy loam and had been planted previously with corn. A light coat of manure was plowed in. The potatoes were planted in furrows, made by a one horse plow, about 3 feet one way by 12 in. the other, and 6 in. deep. Whole medium sized seed was used, and 20 bushels on the piece we speak of. They were covered about 3 inches deep with a hoe. When the potato tops were all out of ground, a plow was run between the rows, and as near as could be, they were covered 3 inches deeper, leaving the ground nearly level, and very few tops in sight.

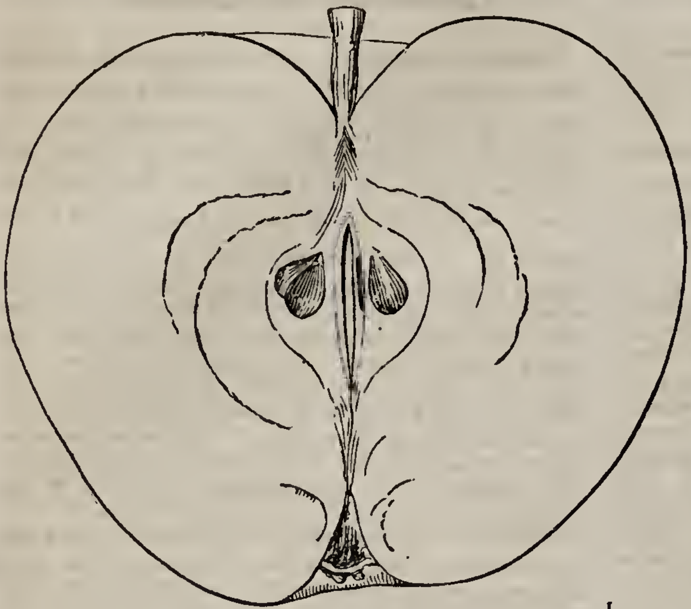
A fortnight after this, they were hoed by hand, solely for the purpose of subduing the weeds.

On the 10th October they were dug, and the yield was 165 bushels. They were mostly large, smooth, and sound.

The following is the debit and credit of the account:

Cr.		
165 bus. Potatoes, at 50 cts.,		$82.50
Dr.		
Hauling Manure,	$ 3.00	
Plowing,	1.75	
Harrowing and Spreading,	1.00	
Planting,	3 00	
Cultivating,	6 00	
Digging,	12.00	
20 bus. Seed,	20 00	
Manure,	6.00	
Interest and Taxes,	11.00	
		$63.75
Profits,		$18.75

You will see that the estimates for digging, seed and interest, are liberal. It costs some men, for instance, but 3 or 4 dollars for digging an acre. Who can say that farming does not pay? A neighbor of mine sold $210 worth of *early* potatoes from an acre last year. J. N. Bagg. *West Springfield, Mass.*



The Sailly Apple.

Messrs. Editors—I enclose herewith an outline and description of an apple which has been cultivated in this vicinity to a limited extent, for the last 30 or 40 years, and is much esteemed as a desert apple. I first found it in the garden of F. L. C. Sailly, Esq., of this village, growing beside several other very choice kinds, such as the Fameuse, Red Autumn Calvill, Reinette a Cote, &c.; the two last named are of French origin, and Mr. S. thought it quite probable this apple was also from France, but could not give me its name. He supposes it was grafted by his father Peter Sailly, Esq., at least 40 years ago. I have propagated it for the last ten years by the name of "Sailly Autumn." I have quite recently discovered that it is a seedling of this town. The original tree now stands on the farm of J. H. Sanburn, Esq, and although very old and diseased, it bore a good crop this season. There can be no doubt of this being the original seedling tree. I judge from close examination of the tree, the appearance of the sprouts from the root, and Mr. Sanburn informs me that there was not a grafted tree on the farm when he bought it, and this tree stands in the back part of the large orchard, a place not at all likely to be selected for the only choice grafted tree on the farm.

I consider this apple well worthy of cultivation. It has a very peculiar and agreeable aroma, quite distinct from that of any other apple I ever tasted.

Description of the Sailly Apple.—Medium to large; oblate-conical; surface smooth, and color bright rose in small stripes and dots on a greenish yellow ground, the exposed side frequently deep red. Stem, one half inch in length, inserted in a shallow cavity. Calyx, small, closed, and in a small, narrow, sometimes wrinkled basin. Flesh, very tender, juicy, rich, high flavored, with a peculiarly pleasant aroma. Tree of rapid growth, upright, wood dark short-jointed; buds prominent and long; very productive—20th Sept. to 20th Oct. John W. Baily. *Plattsburgh, N. Y.*

[Having met with this apple, we have been inclined to regard it as worthy of attention, and from some years recollection since we saw it, believe it may stand as high as "very good," in the scale of the American Fruit Congress. Eds.]

Culture of the Locust and Chestnut.

A correspondent proposes to plant a sandy ridge of land with a mixture of the Yellow Locust and Chestnut, and inquires the best mode.

We would first plow the land, and get it into a fair state of cultivation, in order that the young trees may have a vigorous growth during their early years. We would then plant the two sorts in alternate rows, twelvefeet apart, that is, one row of locusts, then twelve feet from this a row of chestnuts, and so on. The best way would be to plant them in "hills," about four feet apart in the row. The intermediate twelve feet space may then be cultivated at first with corn or potatoes, in rows with the trees—and thus save expense. A few seeds being put in each hill, all may be allowed to grow for a year or tw, and then the strongest plant selected, and the rest pulled out. This will give all vigorous trees at regular distances. When large enough for posts or rails, or in about ten years, every alternate tree may be cut out and used, which will leave plenty for larger growth. These may be again subsequently thinned, if desired. Those who have experienced the difficulty of trying to drive a load of timber through the crooked windings of a common piece of timber land, will now see the great advantage of straight rows for the passage of the team, in drawing out the cut timber.

It is perhaps hardly necessary for us to say, that the locust seeds will not grow, unless *swelled* by scalding—nor will the chestnuts, unless taken fresh and moist, and packed in moist sand or leaf-mould till planted.

An advantage in *alternating* the two kinds, is in case the locust should ever be destroyed again by the borer, the chestnut will grow and fill up the space. If placed too near or both in the same row, one might crowd or injure the other.

A great advantage will result from a few years of horse cultivation at the commencement.

Plaster for Potatoes.

Last Spring Mr. A. Tyler, one of my neighbors, having hired some land of me, on which to raise potatoes, I gave him seven rows—thirty-six rods—through the field which I used for raising my own potatoes. We both planted with peach blows the same day, hoed twice each, at the same time, and harvested together. In planting, Mr. T. used a little the largest seed—rolled in plaster when fresh cut, and planted with the cut side uppermost. He also applied some ashes and plaster mixed, at hoeing. I used neither ashes or plaster; and the season commencing very dry, I soon had occasion from the looks of the tops, to offer twelve rows for his seven, which was refused—and now for the result. Mr. T. dug seventy-two bushels—fifty-five of them large and sound, while I dug but thirty-eight bushels, of which thenty-four were large; or

Plastered potatoes, 55 bush. large—17 bush. small.
Not plastered, 24 " " 14 " "

Shelburne, Vt., Dec. 13. Robt. J. White.

Comparative Value of Guano.

Messrs. Editors — One of the vexed questions among agriculturists, is as to the value of guano as a manure, and I have often read articles in The Cultivator on that subject. My interest was considerably excited by such an article in the Dec. number, containing remarks or opinions of Solon Robinson and others. Upon reading such articles, the question always presents itself to my mind, why do not some of the agricultural societies who seem to be entirely at a loss what to do to promote the objects for which they profess to be organized, by a few well conducted experiments, settle the very important question as to the value of guano. The experiments should be directed to two points.

1st. What is the value of guano as compared with stable manure or other manures, in reference to the immediate crop for which it is applied?

2d. What are its ulterior effects upon the soil?

The first question I think is already pretty well settled, by the experience of many persons who have used guano. I think all persons who have used any considerable quantities of it, in a proper manner, are agreed that it is a very powerful and efficient fertilizer for the present crop. In my opinion the only difficulty, when it has failed to answer expectations, has been that there has not been enough applied. If spread over the ground and plowed or harrowed in, almost any quantity may be used without danger. I have myself sometimes used from 800 to 1000 pounds per acre upon cabbages, and even then the expense does not exceed that of horse manure applied only in the row.

The second question is that as to which farmers in this neighborhood are in doubt, and in consequence are afraid to use guano to much extent, or continuously from year to year upon the same ground.

There is no doubt that guano, if enough is used, will produce the first crop, and I believe fully equal to any thing that can be applied. I believe too that if any considerable quantity has been put into the ground, its effect will also be visible enough the next season, and perhaps for a third season. But this does not answer the question, what are its ultimate effects upon the soil? I have always been afraid that it acted, partly at least, as a stimulant, inducing the soil to part with its producing qualities, and thus gradually exhausting it. I do not suppose that this effect would be fully accomplished for several years, but I should fear that land would become poorer every year, that was forced by guano, until guano would cease to produce any effect upon it. But upon this point I am by no means certain. I have never tried any satisfactory experiments to ascertain the point; and in fact, to confess the truth, I do not like to risk such experiments. We require our land about as good as it can be kept, or it does not pay to cultivate it. I have been informed by a gentleman from the South, who professed to have used guano for a good many years, that after repeated application to the same land, it ceased to produce any effect; but I have not sufficient knowledge of his accuracy and attention to the subject, to rely upon his observations.

Now I would suggest, that some agricultural society that wishes to be useful, cause to be tried some such simple experiment as this. Plant, say two acres, of potatoes or corn, with guano—not less than 500 pounds applied to the acre, and plowed or harrowed in, and measure the result. The next year repeat the same in the same manner, and give us the result, and so the third year. By that time the effect of the experiment will be demonstrated one way or the other. The crops will grow better each year, or worse

Such an experiment would be in the highest degree important to the agricultural interests of the country. Nothing can be more important than to know whether an application to land of a substance so much used, is ultimately beneficial or ruinous.

This question is by no means a settled one among agricultural authors. Some authors in agricultural chemistry, say that no fertilizers will supply the place of bulky manures for a length of time, because the supply of organic matter, or *humus*, in the soil, can only be kept up by the application of large quantities of manure. But these same authors teach that this organic matter in the soil is not taken up by plants, and therefore is of no use until it is dissolved and changed into carbonic acid and the various salts. And it would seem from the various analyses of guano, that it contains a sufficiency of organic matter as well as of the salts and other substances necessary to promote fertility. In fact, several authors state that guano contains all the elements of fertility, and is capable of being a perfect substitute for stable or barn-yard manure. I am one of those, however, who would be much better satisfied with the results of actual experience than with theoretical conclusions, arrived at by an analysis of plants and then an analysis of manures, together with the supposition that these analyses ought to show the same substances in both, and in nearly the same proportions. A Subscriber.
Long Island.

Treatment of Meadows.

Messrs. Editors—I have been a subscriber to your valuable work for some years back, and have not seen any thing about our Schuylkill county farming, and yet I think we can make as much money at farming here as anywhere in this state, notwithstanding our county has such a bad name as an agricultural county.

My farm is situated, about an hour's drive from Pottsville, which is supported by the anthracite coal mines that surround it. The best paying crop that can be raised here, is Timothy hay. My mode of keeping my farm in hay, is, after mowing it about four or five years, to manure it heavily with barn-yard manure and compost, about the first of August, or as soon after mowing as possible; plow about ten inches deep, roll it with a heavy roller, harrow it twice in the same direction that it was plowed and twice crosswise; then sow about eight quarts Timothy seed to an acre, and roll it with a heavy roller to prevent the seed from drying up. The following summer, an acre will produce about one ton, worth $26—the second season, about 2½ tons; the price it is now selling at, $26, makes $65 per acre; the expense of mowing, making, hauling to market, and interest on land, $23, leaving a net profit of $42 per acre on 2½ tons.

My mode of getting sufficient manure is, to haul as much muck out of ponds along the river, in the fall of the year, as I can, into a heap. The following summer I haul about a hundred tons of manure from a stable where boat mules are kept, two miles from the farm, and make a heap as high as you can throw it with a shovel,—an alternate layer of muck and manure, making it pointed at the top to prevent the rain from penetrating it. In Germany they make their compost heaps from twelve to fifteen feet high, carrying the manure, &c., up a ladder in baskets, but I do not think it will pay where labor is so high as here.

If any of your subscribers have a better mode of keeping their farms perpetually in hay, they would oblige a young farmer, and no doubt a good many others, by letting it be known through The Culivator. E. B. P. *Schuylkill county, Pa.*

Remarks on Underdraining.

MESSRS. EDITORS—I have just finished the perusal of the Co. GENT. for Dec. 6th, and the first article on underdraining, contains so many thoughts and ideas, coinciding so exactly with what I conceive to be "sound doctrine" and good sense, and yet so rarely to be found in the agricultural literature of the day, that I cannot forbear an expression of approbation.

Now this matter of underdraining has been to my mind a sort of puzzle—that is, the newspaper talk about it, for, as far as my own case was concerned, I have never believed that it would pay; but I have carefully read everything that has come in my way for the last fifteen years, from the fine article in Stephen's "Farmer's Guide," and so on down to the last no. of your paper. The large experience of Mr. John Johnston of Geneva, and his remarkable success in this business, as detailed in your paper from year to year, has particularly attracted my attention. The agricultural press of the country have urged the matter upon the attention of the farmers. Even in Iowa we are told that we must underdrain. A gentleman of extensive and varied acquirements, gravely asserts that *nine-tenths* of the tillable land on the Western Reserve needs underdraining.

Now all this talk is very fine, but very few of these gentlemen in easy chairs, seem to have thought of the grand controlling question, "*Will it pay?*" That it has paid in the case of Mr. Johnston and some others, seems tolerably plain, but that the results with the rest of mankind would be equally favorable, remains to be proved. For my own part, I am unable to perceive the necessity of this universal drainage. It is easy enough to understand that in cases where the soil is encumbered with springs, hidden or otherwise, some sort of drainage must be resorted to, to render it dry and fit for plowing; but that high, rolling lands, even of a tenacious character, need all this underground work, I am not prepared to believe.

Springy lands constitute but a small portion of the country, and it appears to me that surface draining is all that the majority of the farming lands need, and certain I am that land must be higher priced than it is at the West, before underdraining as a system can be adopted.

I would not wish to encourage a mercenary spirit, but if our agricultural writers would ask the question, "Will it pay?" we might be spared the trouble of reading a great many foolish recommendations; for, undertake to get round the matter as we may, the truth stands boldly out, that no course of farm management is fit to be named, but such as is *pecuniarily* advantageous. Men of wealth, if they choose, can scatter their money foolishly, as they are doing every day on every hand—wasting money in a business they do not understand—figuring largely on committees at County Shows, and thinking common farmers foolish for not following in their foolish tracks.

It is a settled matter in the business world, that any trade or occupation must be self-supporting—else loss and absolute ruin will be the result. Of course the same thing must be true of agriculture.

It is probably true that a large portion of the land in our country would be benefitted to a greater or less extent, by thorough drainage, but it is not certain that it would *pay* at the present prices of land and produce; and I will venture the assertion, that instead of selling off a portion of their farms to underdrain the rest, a very large proportion of our farmers would do better to buy more. It may do in some portions of the older sections of the country, where the price of land is nearly stationary, to talk about selling, but the farmers of our country have felt too sensibly the effects of the "rise of real estate," to willingly part with their lands, short of a clear demonstration of the advantages to be derived.

The true economy of the farm, as appled to American Agriculture, is but poorly understood by a large proportion of our would-be agricultural teachers. In fact I believe that the actual practice of the farmers of the country, is far ahead of a part of the teachings we meet with in print, and hence one reason for the aversion felt by many to agricultural periodicals.

There are so many varying conditions that must necessarily influence the practice of the farmer, that mere theorists will have to stand back a while longer.

In closing, let me offer you my sincere thanks for the eminently practical character of your excellent paper the past year, and particularly for its fearless exposure of the miserable humbugs sought to be imposed upon the farming community by unprincipled adventurers. Long may the COUNTRY GENTLEMAN live to cheer the hearts and enlighten the practice of the American farmer. HAWK EYE. *Keokuk, Dec. 24th,* 1855.

Progress Among Farmers.

MESSRS. EDITORS—It is generally conceded that farmers as a class, are slow to improve and to adopt improvements in their occupations though as well informed as any other class upon all other subjects that concern the good of society. Let us look to a few causes which produce this result. One prominent reason, which may be offered as an excuse for them is, that there are so many humbugs in existence, called "improvements," by which their pockets are drained, that they look upon anything new with a suspicious eye, and are contented rather to follow in the paths their fathers safely trod, than to venture out upon unknown seas. But aside from this, there are other reasons which leave them no apology for their standstill position. Knowledge is the great engine of progress, and it is the deficiency of this that constitute the principal draw-back to agricultural improvement. Our farmers would not so often be deceived with special manures and false theories of cultivation, if they thoroughly understood their occupation. Knowledge, said the great philosopher, is power. Give man that, and he can and will move onward, but without it he is weak and inefficient, and must stand still and let others who possess it pass by him. Mother earth has been so bountiful in supplying the wants of man that he has not been under the necessity of learning the causes which have produced the results of his labor year by year. But now long abused nature has at last risen against her oppressors, and demands remuneration. While they are suffering under her castigations, they know not what they have taken away, and cannot restore the ancient inheritance. Necessity is the mother of invention, and this must be the spur that will incite them to investigation. Another cause that hinders the progress of agriculture, is the isolation of farmers. Men learn to apply the knowledge of their fellows by associating with them. Association stimulates us to emulation as well as gives us an opportunity for gaining information. It is this lack of association that keeps agriculture so far behind the age in the general progress that is going on in all the other departments of labor. Every means then, that tends to bring our farmers to a better acquaintance with each other, as agricultural societies, papers, schools and colleges, ought to be encouraged by every lover of progress. Then will the "rationale" of their practice be discussed, and the science of agriculture be studied and promoted, and knowledge and progress go hand in hand. The cynic philosophy of those who maintain that the necessities of our existence will introduce all practical improvements, without these social helps and stimulants, is based upon false principles of human nature. J. H. S. *Blooming Grove, N. Y.*

Too Much Fruit.

A correspondent residing on a large farm in western Pennsylvania, writes: "The past season has been a very productive one—the only fault, we have too much—our fruit was so abundant that it was not worth handling, although on the river, canal, and railroad, only twelve miles from the city."

We have never yet known within our own observation, a crop of fine winter apples, of the best sorts, that did not command a good price in market, or such a price as would give from fifty to one hundred dollars or more per acre, provided the trees had been well cultivated and cared for.

We do not know the kind of fruit our correspondent refers to; perhaps it was of perishable and not long-keeping varieties. Or it may have been otherwise, but so much exceeding the crop of previous years in quantity, that dealers had nor prepared themselves to make such large purchases, which also occurred in some other places.

It may be laid down as a fixed rule, that no quantity of apples, unless of the sourest and most worthless character, is ever too large—all may be used in some way or other. Fed in a raw state, they are decidedly better than potatoes for fattening hogs; and unless quite sour, we have found them fine for both milch cows and horses, when chopped and mixed with meal. What a vast amount of excellent pork and fine butter might be made from the wasting crops of some regions. If farmers had large cellars, they could easily store for winter-feeding, all their surplus apples, and save their grain for market. Apples are much more easily gathered than any kind of roots, and cleaner to feed out. Why, then, are they so singularly overlooked?

Many trees have been set out of late years, but until the past, the seasons have proved unfavorable for heavy crops, the trees continuing all the while to increase in size. As a consequence, the past very favorable season threw a great quantity into market, beyond the capacity of the coopers, purchasers and forwarders to provide for. But when crops become uniformly large in successive years, purchasers will be found, provision will be made, our large cities will be supplied at moderate prices, and as a consequence of these moderate prices, the demand will become enormous, for every one will be able to use apples and use them freely, as a matter of family economy. Farmers always make the most when prices are low and crops abundant, so long as a market can be found. And we need not fear that a market will always be found, when a regular supply becomes known, so long as human beings require food.

In Europe, the great mass of the people are unsupplied, while we are deluged. A large quantity of the best long keepers, at low prices, will open a large market there. But the right kinds must be selected—those well adapted to this purpose; fruit raisers must learn to gather their crops more carefully, and without bruising, and to pack so as to insure a safe conveyance. There is much yet to be learned in this department of the business.

The only fear that need be felt in relation to too many trees being set out, is that *unsuitable kinds* will be selected. Yet the crops of even these will always prove profitable for home consumption, and for domestic animals, if no other market is to be found for them. We hope no one will be deterred from continuing to plant—good orchards will never prove bad property, if well taken care of, and the crops properly used.

Remarkable Adaptation of Seasons to Vegetation.

Probably the present age has not furnished so remarkable an adaptation of seasons to the wants of vegetation, as the three lately passed, namely the hot dry summer of 1854, the succeeding intensely cold winter, and the past cold and wet spring.

1. We never remember so perfect a ripening of the wood of tender trees, as resulted from the extraordinary heat and drouth of 1854—growth ceased early, and the maturity of the wood was complete.

2. The consequence was, that although the thermometer sunk about 20 degrees lower than usual throughout the western part of New-York and the adjacent regions, less injury was done in many instances than in much milder winters. The Osage Orange, for example, was scarcely killed back—we have found no dead ends of shoots more than six inches long, on a four year hedge. In other years, when the warm and moist summer and autumn has favored a late growth, a much greater length of shoots has been destroyed.

3. In other cases, notwithstanding this previous preparation, the cold proved too intense for the trees, and this was especially so with the peach. There is no doubt that many trees would have died, had the following spring been suddenly hot and dry. The unusual amount of wet and cold weather, and the gradual approach of warmth, operated in the most favorable manner, and many who had given up their peach orchards as beyond hope, were surprised and gratified to see them come out handsomely into leaf, and make a vigorous growth, favored as they were throughout by a remarkably growing year.

And yet not a few cultivators thought *hard* of the ordering of Providence, because, first, they were subjected to so severe and long a drouth as that of 1854, and to so cold and wet a spring as that of 1855.

> " One part, one little part, we dimly scan,
>   Through the dull medium of life's feverish dream;
> Yet dare arraign the whole stupendous plan,
>   If but that little part incongruous seem."

Draining with Wood.

Mr. Dinning, in this vicinity, makes his drains, digging three feet deep; width at bottom fifteen inches; then lays at the bottom a fence rail; on each side of the rail a slab, nine inches wide, meeting at the cone, but not overlapping. Where the slabs meet at the ends, covers with a sod, to make the joinings tight. The slabs used are the second cut from the log, and cost 3 to 4 dollars the hundred. This is considered the simplest, cheapest, and most durable drain that can be made. John Fisher. *Quebec, Dec.* 1, 1855.

Thornless Blackberry—A New Variety.

Messrs. Editors—It may be interesting to some of your horticultural readers to learn that there is in cultivation, a new variety of blackberry. I wish to premise that I am not in any manner interested in procuring the *sale* of plants of the variety. I shall attempt to describe, but as a looker on merely, to show you what is passing in our part of the horticultural world. As in the case of the New Rochelle berry, the discovery of this thornless variety was made by accident. A Mr. Newman, residing a few miles west of this place, (Milton,) while walking in the fields, saw two blackberry canes together, covered thickly with their white blossoms, and observed that there were none of the thorns usual to the species upon either the main stems or branches. This peculiarity led him to expect something unusual in the fruit. He took from those two bushes in the fall, twelve quarts of luscious, finely flavored berries at one picking. He noticed also that the season of ripening lasted from five to six weeks, a period far beyond that of the ordinary berry. The canes were removed by him at the proper season, and these berries have been in cultivation for the market since that time, some three or four years. Mr. N. seems in no wise anxious to dispose of his stock, and I am not quite sure that he will be pleased with this much notoriety. A. A. B. *Faustledge, Milton, N. Y*

Measurement of Grain.

Messrs. Luther Tucker & Son—Some of the following rules I have picked up here and there, and if you deem them worthy of insertion in the " Country Gentleman " you are welcome to them.

Grain, &c.—1. When the grain, &c., is heaped in the form of a cone. Rule—multiply the difference of the squares of the perpendicular and slanting heights by the perpendicular height, and this product by .0005 This final product is the contents in bushels.

Formula. $(S.H.^2 - P.H.^2) \cdot P.H. \cdot .0005 =$ bush.

Example—How many bush. in a conical heap of wheat, the perpendicular height being 35 in., and the slanting height 65 inches ?

$$(65^2 - 35^2) \cdot 35 \cdot .0005 = 52.5 \text{ bushels.}$$

2. When the grain &c., is heaped against the side of the barn. The heap is now in the form of a semi-cone, and the formula is the same as the last with the exception of multiplying the difference of the squares of the perpendicular and slanting heights by *one-half* of the perpendicular height.

Formula. $(S.H.^2 - P.H.^2) \cdot \frac{P.H.}{3} \cdot .0005 =$ bush.

Example—How many bushels of oats are in a heap against the side of a barn, whose perpendicular height is 30 in., and slanting height 60 inches ?

$$(60^2 - 30^2) \cdot \frac{30}{2} \cdot .0005 = 20.25 \text{ bushels.}$$

3. When the grain is heaped in the corner of a barn, the figure becomes a quarter of a cone, and this is the

Formula. $(S.H.^2 - P.H._2) \cdot \frac{P.H.}{4} \cdot .0005 =$ bush.

Another week, if you wish, I will give a rule for weighing hay in the stack, &c. Hoping these may be of use, I remain yours truly, Q. O. Q. *Albany, N. Y.*

The Housewife.

Messrs. Tucker & Son—As we have been for some time a subscriber to your Cultivator, I take the liberty to send you a few valuable family recipes, that have been thoroughly tested, and that have never to my knowledge appeared in your paper.

For Curing Hams.

Make a strong brine ; add one ounce of saltpetre to a ham ; let them remain in the brine three weeks ; then take them out and soak in water a few hours ; then smoke.

To Preserve Hams during the Summer.

Slice and trim ready for cooking ; pack in a stone jar, alternating a layer of ham and lard ; cover tight, and it will keep perfectly sweet for a year.

An Excellent Pickle for Beef.

To one hundred weight of beef, four quarts of salt, two oz. of saltpetre, and one pint of molasses ; mix well in water enough to cover the meat.

To Keep Fresh Meat in Summer.

Put the meat into a stone jar, and cover it with sour milk. By changing the milk once or twice, it will keep a week or more. Before cooking, wash the milk from the meat, and lay it in a little soda water a few minutes. It will make it very tender.

To Make Corn Bread.

Two qts. corn meal, one qt. rye, one qt. of sweet milk, one qt. of buttermilk, one teacup of molasses, one spoonful of salt, and one teaspoonful of soda. Beat with a spoon until well mixed. The crust, if not burned, will make excellent coffee.

For Cooking Vegetable Oysters.

After cleaning, cut into slices a quarter of an inch thick ; boil in plenty of water until tender, with a few bits of codfish ; salt and season with pepper, butter and cream, and you will have a soup almost equal to shell oysters.

For Cooking Asparagus.

Cut into bits half an inch long ; boil in water enough to cover it ; salt, put in a bit of soda the size of a pea to a quart, and season with butter and cream. New tin is the best to cook it in.

For Asparagus Toast.

Cook as above, with the addition of an egg or two, well beaten ; prepare a butter toast, and turn it on.

Butter and Cheese.

A few words of my experience in making butter and cheese.

I have used the year past, Skinner's Patent Centrifugal Double Beater. It is the most economical and labor-saving churn I ever saw. It makes about ten per cent more butter than any other churn, and there is no waste of cream. The butter comes quick, and gathers very nicely. I wash my butter in the churn, if not too hard, and also mix in the salt before taking it out.

When I skim off my cream, I put a little salt into it, which prevents the white specks that so often appear in butter.

The churn answers for a cheese tub. If you like buttermilk cheese, turn your buttermilk back into the churn, warm your sweet milk, and turn in with the buttermilk—(the more sweet milk you put in, the more it will be like common cheese)—put in a little rennet, mix well, and let it stand until it comes ; then break it up and let it settle ; then drain it off, and season like other cheese ; squeeze it into a bag, or if you have enough, press it into a hoop. It will be fit for use in a few days. A Country Lady.

Profits of Dairying.

Messrs. Editors—In the Country Gentleman of Nov 15, 1855, is an article headed " A Model Farm of the Empire State," in which is a statement of the management of Mr. Coffin, and when he comes to the dairy department, he gives the proceeds of five cows for seven months, at $259.32, including 5 calves at $25, and 100 lbs. of pork to each cow.

In the number for Nov. 29, is an article of Mr. E. M. Shepard, giving $326 53, or 65,30 to each cow, by which he claims to beat Mr. Coffin, who only made $51.86 per cow, during the seven months.

Now, allow me to find a little fault with both of the above statements, and I will fire my gun, which, though not very large, is a *leetle* louder than anything as yet—premising that the Green Mountain boys can't be beat in number or quality of cattle, horses or sheep.

Mr. C. allows each cow to make 100 lbs. of pork from the skim milk, (but does not say how much grain he fed, or how much the swine were worth when he commenced,) which I think is too much, and I will venture the assertion, that there is not a cow in the United States that will make 100 lbs. of pork in seven months from the skim milk alone.

Mr. Shepard falls into the same error, only worse, for after allowing 100 lbs. pork to each cow, he claims $18 to each cow for calves raised, as one would infer, from the skim-milk, which is twice as much as the skim-milk during that period is worth—and says nothing about the quantity of grain fed ; and again, $15 for calves ten weeks old, is a pretty tall price for natives.

Mr. C. does not give a description of his cows, breed, age or quality—whether they are common cows, or worth two or three hundred or a thousand dollars each, as some of the imported cows are, which would materially decrease the actual profits. Neither do either of the gentlemen say where their butter was sold, whether at home or at market, allowing a discount for freight.

I will give my statement as follows : I have seven cows, varying in age from two to seven years—four of them are half-blood Ayrshires, and three native—all very small, some not weighing 750 lbs., and worth about $40 each in the spring. Two of them are heifers, and did not come in until the 12th of June I also had the use of a three-teated cow about five months, which would make the heifers nearly as good as the cows. I fed ten bushels of oat meal in the spring, before the cows went to grass, of which they have only had common pasture. I will not include pork or calves, of which I have kept an exact account, or premiums, which amount to some $10—but will give you what I call the exact product.

I have not carried out the prices or items of butter, for I sold fast as made, delivered at Montpelier Depot, 4 miles, and mostly to one man, at prices ranging from 22½ to 30 cents per lb., but put the same all in one item.

Between April 15 and Nov. 15, 1855. 683½ lbs butter,	$167 43
Oct. 22, 1262½ lbs. cheese sold for 11 cts. per lb., ... ,	138.87
5 quarts of milk used daily, which is a small estimate, for 214 days, at 2 cts., ...	21.40
	$327.70

Which is $46.81 for each cow.

Now Mr. Coffin's statement only foots up $188 92 for seven months' butter and milk only, which is $37 78 2- per cow, and Mr. Shepard's statement only foots $186 53, exclusive of calves and pork. which is $37 30 3-5 for each cow, and not quite up to Mr. Coffin after all.

I will now leave it with you, Messrs. Editors, and the readers of your valuable paper, to judge as to who beat, and will trespass upon your patience only to add that I can name a number of persons in this town, whose dairies will average over $40.00 to each cow, without taking into account calves or pork. A. D. Arms. *East Montpelier, Vt, Dec. 3d.*

Raising Pork.

Joseph Greene, of Macedon, N. Y., has furnished us a verbal statement of his mode of raising and fattening swine for pork, which he has practiced with uniform success for the past nine years, and which we think is worthy of attention.

He commences with spring pigs; and at the outset takes care that they are no more in number than he can furnish abundant food for. He feeds them milk,—sour milk from a small dairy—but does not allow it to become diluted with dishwater or slop of any kind, which is thrown around his fruit trees. He thinks a great loss is usually sustained by feeding pigs *diluted* drink, instead of the most concentrated liquid nourishment. His experiments also prove that more and better pork may be made by having as few pigs as will eat the food, than by the more common attempt to do a great deal with a little, or in other words of having twice as many animals, and trying to fatten them on short allowance. Meal and bran are added at a late period, as needed ; and before mid-autumn, they are fed mainly on the ground meal of *old* corn. They are not found to thrive so well on new corn, and fail on " nubbins." They are always kept up, and not allowed at any time to to feed on so bulky and comparatively unfattening a food as pasture. After about six months treatment in this way, or rather when only six months old, they weigh about 300 pounds each. Last year, at seven months of age, three weighed in the aggregate 956 pounds. This year, the only one as yet butchered weighed, at six months and ten days, 298 pounds. This weight is taken after the animal is *dressed*. They are " the common breed," which in this part of the country appears to be a slight mixture of some Berkshire with a little Leicester blood, with more of an older and less favorable " native " sort, long known through the country. He ascribes his success entirely to the mode of management, and not to any superiority of blood or breed.

Crop of Corn raised by J. S. W.

Field contained one acre and 71 rods, greensward. Manured with 120 horse cart loads of stable manure, plowed 8 inches deep, and well harrowed. Marked in rows each way 3 by 3½ feet apart. A single handful of the following compost was put in each hill,—2 parts night soil, 6 parts loam, 1 part ashes and 1 part fresh slacked lime. The night soil and loam wrere composted a year before using. Variety of corn—long eight-rowed; planted dry with hand planter, May 16th. In a part of the field only the compost was covered before planting. All came up well and was immediately dropped with ashes and gypsum. At the first and second howing, the cultivator was used, and at the third, a small plow. At the second howing, 3 and 4 stalks were left in a hill.

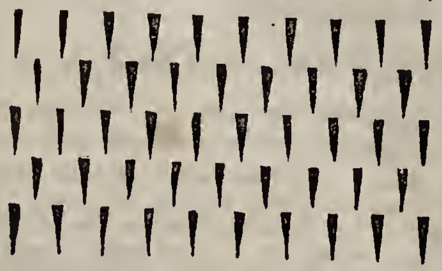
The corn was cut up, and carted to the barn before husking. The yield by actual measurment was 245 bushels of ears, each containing 17 quarts of corn—a fraction over 90 bushels of shelled corn per acre. *New Britain, Ct.*

What Shall be Done with our Old Pastures?

This is an important question, often asked, but yet unanswered satisfactorily. I will venture a suggestion—it is all *theory*, never *practiced*, that I know of—with regard to *one kind* of pasturing. I mean sloping land, free from stone, producing but little grass, of a fine moss-like kind, with here and there a hard-hack, occasionally a bunch of brakes, and inclining to swell up in hammocks, often as large as a bushel basket, about productive enough to feed one cow poorly to five acres. If plowed up once in eight or ten years, it will give a moderate crop of rye, and then a little more grass for a year or two, after which it becomes more dead and unproductive than before.

Now the probability is, that such land refuses feed, less from a lack of the proper elements of grass, than from its containing injurious matters. It will be noticed that water oozes from the surface, after rains, instead of sinking through the subsoil. The land is infested with poisonous substances, often the soluble protoxyd, or some soluble salt, of iron. A pan is formed, which prevents the water passing down. It consequently finds its way along the slope, rendering the soil cold and heavy, and frequently after abundant rains oozes out at the surface. Now every one would say, the proper treatment for such land is, to underdrain it. But I fear it will be long before the owners will feel that they can adopt so expensive a process Now if it were to be underdrained, would it not be well to lay out the work so as to use the drainage water for irrigating the lower portions of the pasture? for, although these drainage waters would bring out the poisonous matters of the soil, and consequently would be themselves poisonous in their first effects, yet it should be remembered that those oxids and salts which are poisonous, when excluded from the air, are changed into other compounds, when exposed, and become either harmless or beneficial. But the immense benefits of drainage are little understood yet, and I fear it will be long before we shall see much of it, especially on pasture lands.

What I wish to suggest, is, the subsoiling of these lands, as a cheaper substitute for draining;—to run cuts with the subsoil plow down the hill, say 10 feet apart and 30 inches deep at the upper end, but shallower as you proceed, till they run out at the surface at the end of five or six rods; then from a central point between these run other cuts to an equal distance; and from these others and so on, as represented below, the size of the line representing the comparative depth of the cuts in different parts. There would be no danger of the land washing, as the turf would remain undisturbed; and I believe that for $1 an acre, (say two pair of cattle and two men a day for four acres) an operation would be performed, which would be a pretty good substitute for underdraining, and which would give some benefit on the principle of irrigation. Who'll try it? **Bill Know Nothing.**



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Cut Glass should be rubbed with a damp sponge dipped in whiting, then brush this off with a clean brush, and wash the vessel in cold water.

Sheep Husbandry.

Messrs. Editors—I send you the result of my experience and observation in relation to the profit arising from the various breeds of sheep for the last twenty years. At the commencement of my farming operations, I bought a hundred sheep, nearly all the merino breed, at an expense of two to three dollars each. I commenced a decided improvement by introducing superior merino bucks from the best flocks in our county, and by selling off the inferior portion of the flock, and supplying their places with better. After a few years of improvement, they attained a very even and beautiful appearance, and were indeed a valuable flock My first clip of wool sold for 65 cts. per lb., which. with the value of the lambs, gave a fair remuneration, above the expense of keeping. But, alas! an evil day began to dawn. Congress passed the Tariff compromise act,—a measure which gave a blow to the wool-growing interest both north and south, from which it has never recovered, and never will until men learn wisdom from experience. But for the folly and madness of our politicians, the wool-growing business might have been one of the most profitable branches of agriculture at the present time. My last clip of wool sold for twenty-nine cts. per lb., a reduction of more than one half under the operation of the act above referred to, and my sheep for 75 cts. to one dollar each At the present time very little wool is grown in this vicinity, except upon sheep designed for raising market lambs.

I have since turned my attention to raising coarse sheep for breeding purposes, and for this purpose I at first selected the Cotswold, but of late, in order to test the comparative value of the two breeds, I have purchased a few of the New Oxfords. Since breeding coarse sheep, my success has far exceeded my most sanguine expectations. The demand for a first rate article of coarse blooded sheep, is far in advance of the supply, and from present appearances is likely to be for years to come.

I will give you the result of my sales for the present year, and leave your readers to compare the results with those of raising fine sheep.

I commenced the winter with 35 sheep.

The sales from my flock for sheep, amount to.	$472.22
The Premiums received at State and County Fairs,.	42.00
For Services of bucks,........................	14.00
Estimated value of wool (a very low estimate,)	42.75
	$570.97
To keep my flock good I have been obliged to buy to the value of,..............................	164.00
Which deduct from the amount of sales leaves,... .	$406.97

I am aware that some breeders who have become extensively known have sold for much higher prices and have realized greater profits. T. L. Hart. *West Cornwall, Ct.*

Domesticating the Buffalo.

Editors Country Gentleman—The Creek Indians sometimes drive out cows to the Buffalo range and there kill their calves and supply their places with young buffalo. These on their return grow up apparently as tame as the other young cattle of the drove with which they range. Though the males when full grown are sometimes vicious and dangerous, pursuing those who chance to offend them.

I cannot learn that any full-blood buffalo have ever been raised from this half tamed stock. But there have been numerous instances of a cross between the buffalo bull and common cows.

Various attempts have been made to break and work these "black-horned cattle," as the Indians call the buffalo, but with very indifferent success. For although of strength inferior only to Barnum's team of elephants, they are so intractable and unruly as to be "more plague than profit."

Two years since a drove of some twenty "three year old" buffalo were driven east from the vicinity of Fort Gibson. It was said their destination was one of the large stock farms of Kentucky, where an effort was to be made to raise them. Of their further history I am uninformed—but I hope the effort may prove successful. For the white man and his iron horse are fast invading the last retreat of the buffalo and his hunter, and unless they give up their roving habits and wild life and become cultivators of the soil, both will soon remain only in the history of the past. Yunesse. *Estun, Indian Territory, west of Arkansas, Nov.* 20.

Pumpkins for Milch Cows.

Messrs. Tucker & Son—I notice in No. 19, vol. VI, Nov. 8, an inquiry about the value of pumpkins for milch cows, and as I expect not only to be a subscriber, but a correspondent to your truly valuable paper, I will endeavor to enlighten your New-Hampshire subscriber with my experience and that of others.

Pumpkins are made up of

Solid matter, about,	3 00
water,	97.00—100

and possess very nutritious qualities, which are increased by the fruit being cooked. It has been ascertained, not only by myself but others who use the pumpkin in feeding milch cows, that the quality of the milk is much improved by this food. They contain much sugar. The seeds of certain melons, are used as a diuretic in medicine, among which are pumpkin seeds. If the pumpkins are fed to the cows with the seeds in them, the diuretic property of the seeds *more* than counterbalances their milk-increasing qualities, which pumpkins fed without the seeds, certainly possess. Let your correspondent feed two cows, the one with pumpkins with their seeds, the other with pumpkins with the seeds and fibrous (lignin) matter taken out, and carefully watch the result. He will find the animal eating seeds and all, give little or no increase in quantity of her milk, which will be rich, but will find that her urine is very sensibly augmented. This increased secretion from the kidneys, preventing a copious secretion from the mammary vessels or glands.

The other cow, fed on pumpkins with the seeds taken out, will give rich milk and more of it than before eating them, with no appreciable increase of urine. Such is not only a single experience, but well attested by many persons. H. H.

Draining with Wood, Tiles, &c.

I own a place of 20 acres adjoining the city, and am now making some experiments in draining my land, which has a hard yellow clay sub-soil, which is very retentive of water. The result upon an acre which I drained last year, greatly encourages me and leads me to the belief, that to those farming either for pleasure or profit, no money or labor can be so well expended as that spent in draining retentive or boggy land. I note the articles in your paper on the use of plank or boards for underdraining. It will not result otherwise than unsatisfactorily and unprofitably. I should much prefer the use of common fence rails to plank or boards. These, with a cross piece about 15 inches long, to support them, every 5 or 6 feet, will make a much more lasting and cheaper material than planks, to those who cannot procure stone or tile. I have used both stone and tile, and have also tried brush, the trimmings of a large orchard. This latter I shall examine in the course of a year or two, and will then report its condition. It has now been made more than a year. The rougher and more twisted the timber the better rails do they make for draining. To add to the durability it would cost but a trifle to char with fire the rails before putting down. Tell your friends who are using planks that it will prove "Love's Labor Lost." The rails are bad enough, but the planks are only one shade better than nothing. J. B. S. *Pittsburg, Pa.*

Cure for Hydrophobia.

We copy the following from *The Post*, published at Elizabethtown, Essex Co., in this state, of the date of Jan. 4th. It is certainly worthy of being remembered and tried:

In one or another of our exchanges we almost every week meet with fearful accounts of deaths by Hydrophobia. Some three years ago we published in the Post a remedy for that terrible disease: but it seems credence was not given to our statement, for it was never copied, to our knowledge. Yet there are still living many evidences of its efficacy. It was first prescribed on a consultation of three physicians, for an individual who had been bitten and badly torn by a dog known to be mad, and, we believe, after the individual had had one or two of the spasms so fearful to behold in a person suffering with Hydrophobia. The patient was cured and lived many years. Of the three Physicians but one still survives, a man of nearly 85 years, but he has had occasion to prescribe the same remedy, during a long term of fifty year's practice, for other persons bitten by rabid animals, and *always* with success. The last time was within our memory, between the years of 1820 and 1824 we believe, when several children in the south part of Chesterfield or north part of Willsborough, in this County, were bitten by a cat. Animals were bitten by the same cat, and went mad and died. We know not if any of the individuals bitten are still living in that neighborhood, but there are undoubtedly others who will remember the circumstances. A remedy so well known to have been proved a cure should be known to the medical profession and to the world; and we once more publish it, hoping that many others may imbibe a portion of the faith we ourselves have in it; and again prove its efficacy should an occasion unfortunately offer.

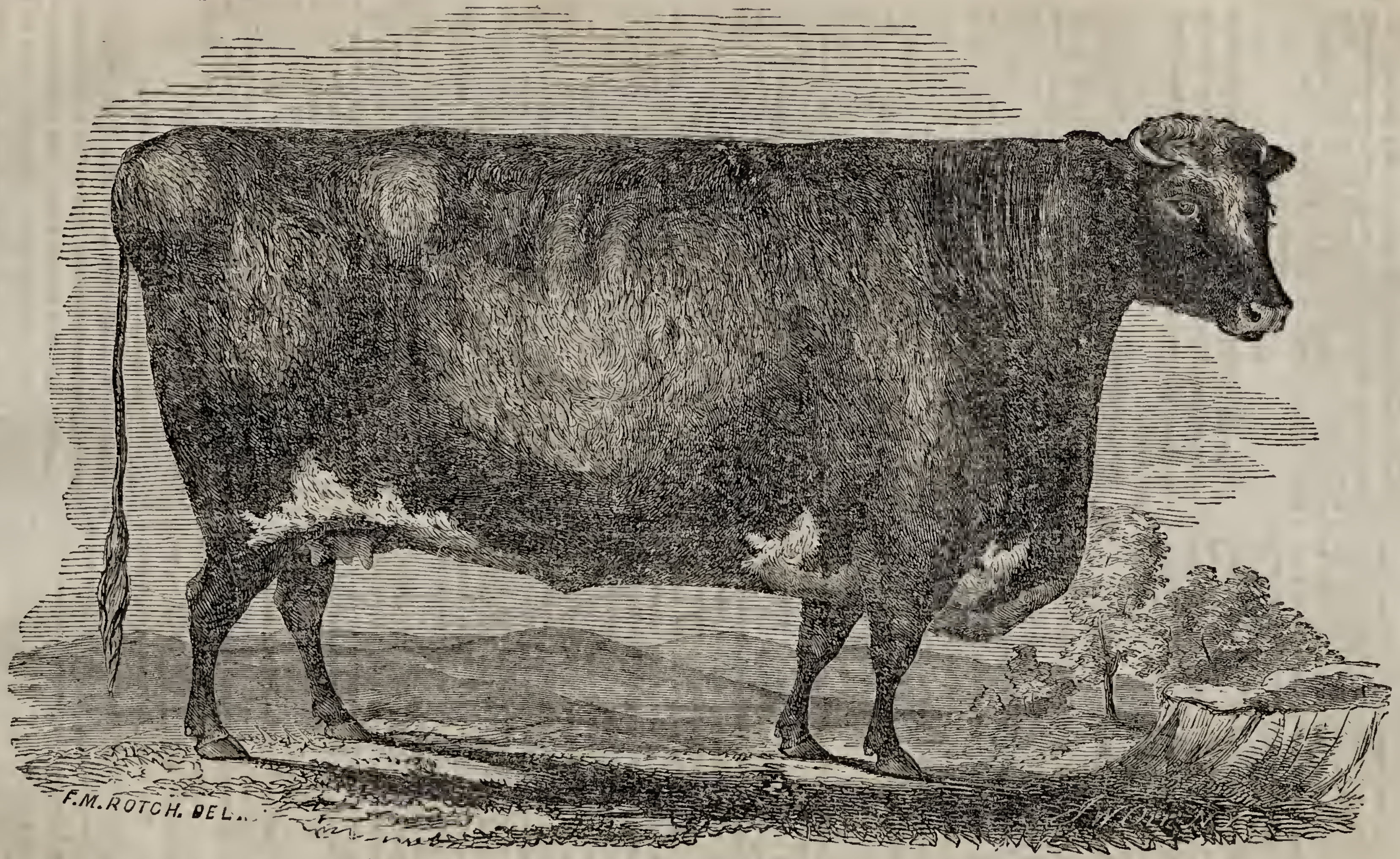
We give the recipe as written out for us many years ago.

Recipe for the Cure of the Bite of a Mad Dog or other Rabid Animal.—"Keep the sore running or discharging matter as long as possible with powdered verdigris dusted into the wound, and give one grain of Turpith Mineral at a dose three times in the day, in a little dry sugar rubbed very fine and washed down with warm tea or water, till the mouth is slightly affected with the mercury, then stop till all the appearances of the affection of the mouth have disappeared; then repeat the course in the same way. Repeat the course three or four times in the course of six weeks, when I consider the patient out of danger."

To Make Yellow Butter in Winter.

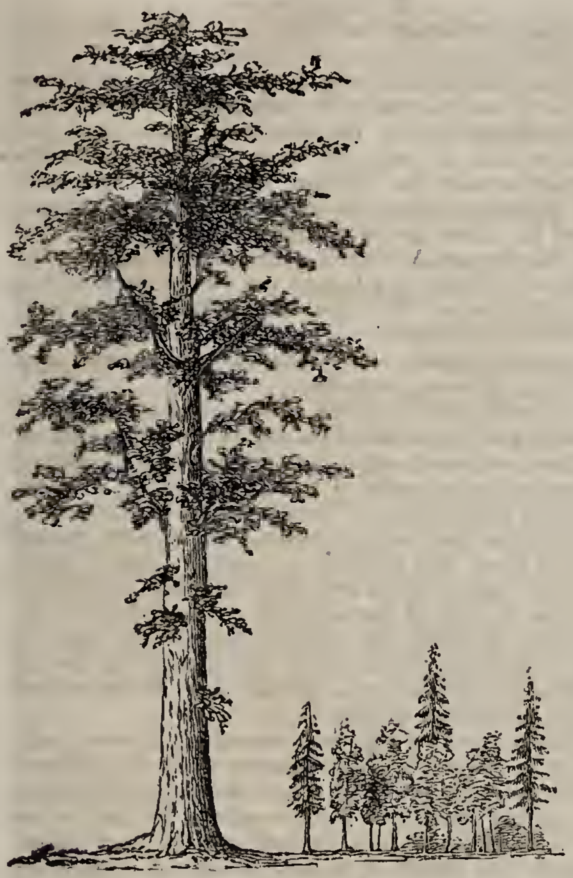
Messrs. Editors—For a churning of ten or twelve pounds of butter, take about three or four carrots—grate them fine, and press out the juice—then pour some hot water on them and press again. Take the juice thus obtained, and mix it with about a pint of new or sweet milk, and put it in the cream and churn as usual. J. A. W.

Glasses should be washed and rinsed in cold water, and the water wiped off with one cloth; then rub dry, and clean with another.


F.M.ROTCH, DEL.

Mr. Thorne's Improved Short-Horned Cow Frederica.

Pedigree.—Red, calved Jan. 3d, 1851—bred by Chas. Towneley, Esq., Towneley Park, Lancashire, England—the property of Saml. Thorne, Thornedale, Washington Hollow, Dutchess Co., N. Y. Got by Upstart (9760)—dam, Feathers, by Duke of Cornwall (5947)—g. dam Lily by Fergus (3782)—gr. g. dam Purity, by Dandy (1902)—gr. gr. g. dam Resplendent by Blythe (797)—gr. gr. gr. g. dam —— by Midas (435)—gr. gr. gr. gr. g. dam —— by Boughton (90)—gr. gr. gr. gr. gr. g. dam —— by Windsor (698) gr. gr. gr. gr. gr. gr. g. dam —— by R. Colling's Son of Favorite (252.) She was imported in 1853, as a two-year-old, having already been a winner at the Royal Society of England, the Royal Irish, the Royal North Lancashire, and the Great Yorkshire Agricultural Shows. She had taken six prizes—one gold and one silver medal, and was one of a lot of three that won a handsome timepiece, given by the great Yorkshire Society for the three best Short-horns in the yard, (belonging to one individual,) open to all England.



The Sequoia Gigantea.

This remarkable tree, as most of our readers are probably aware, was sometime since discovered in California. Many accounts have been given of its wonderful size; and the few remnants of its race that yet exist—we think less than a hundred in all that have been so far found—would indicate that, like other giants, it is destined ere long to become entirely extinct. There has been some discussion as to its name, for while English naturalists, by whom it was probably first described, have called it *Wellingtonia gigantea*, Americans insist that a more appropriate designation would be *Washingtonia gigantea*. The *California Farmer* recently contained an account of one of these monsters "which had fallen from old age, or had been uprooted by a tempest," and the length of which, "from the roots to the top of the branches, was 450 feet."

Now to read simply of a tree four hundred and fifty feet high, we are struck with large figures, but we can hardly appreciate the hight without some comparison. Such a one as this would stretch across a field twenty-seven rods wide; if standing in the Niagara chasm at Suspension Bridge, it would tower two hundred feet above the top of the bridge; if placed in Broadway, New-York, at the head of Wall street, it would overtop Trinity steeple by one hundred and sixty feet, and would be two hundred and thirty feet higher than Bunker-Hill monument Boston; or two hundred and seventy above Washington monument, Baltimore. If cut up for fuel, it would make at least *three thousand cords*, or as much as would be yielded by sixty acres of good woodland. If sawed into inch boards, it would yield about three million feet, and furnish enough three inch plank for thirty miles of plank road. This will do for the product of one little seed, less in size than a grain of wheat.

By counting the annual rings it appears that some of the oldest specimens have attained an age of three thousand years. If this computation is correct, and we see no reason to doubt it, they must have been as large as our best forest trees in New-York, in the times of Homer and the prophet Elijah; and venerable and towering giants during the Carthagenian wars. In other words, "The Roman Empire has begun and ended" since they commenced growing. We hope the small plantation which comprises their whole number, will not share the fate of the world-renowned cedars of Lebanon on their native mountains, now reduced to a dozen in number, but that they will be protected and preserved, and only those that fall by old age be removed for exhibition. It would of course be idle to talk of transporting such a monster to this part of the country, weighing as it does some five thousand tons, and a portion of its shell only may secured as a fragment of such a specimen in natural history.

The figures at the head of this article represent the relative size of the gigantic Sequoia, and of the large forest trees in the more fertile districts of New-York, where elms and maples attain a hight of 90 feet, and pines 130 feet.

Products of a Cheese Dairy.

I have read in the columns of the Country Gentleman, of the products of dairying in other counties; and am induced to speak a little of what we are doing in Washington County.

My own dairy consists of 28 cows, 3 three-years-old heifers, and 2 two-years-old heifers. These 5 heifers I call equal to 4 cows, which would make 32 cows.

From these cows we have made during this season, 17,435 lbs. cheese. The most of it has been sent to New-York, and sold by Ludlum & Leggett, commission merchants. Theirs I consider a first class house for selling good butter and cheese.

17,435 lbs. cheese, after deducting freight, cartage and commission, amounts to,	$1,703.65
780 lbs. butter, at 22 cts.,	171.60
370 gallons milk sold, at 14 cts.,	51.80
4 quarts per day for family use,	43.80
30 calves, 4 days old,	30.00
4 Ayrshire calves, at $25,	100.00
Amounting to,	$2,100 85

or $65.65 for each cow.

Some of my cows are native breed—a part of them a mixture of English—the remainder Ayrshires. The latter I consider preferable for the dairy, not only for the large quantity of milk they give, but for the richness of the milk, and their peculiar properties for holding out their milk late in the season.

There are some 15 or more other dairies in this town alone, of over 10,000 lbs. each, besides many of lesser note. Several of those dairymen are improving their breed of cows, in order to increase their products. Otis Dillingham. *Granville, N. Y., 12th mo. 31st.*

Remedy for Lice on Poultry.

In answer to "A Subscriber," Saratoga Co. The best preventive, is cleanliness. Infested as your house is with them, you should give it a thorough cleansing. Clear it thoroughly, and give it a good coat of whitewash, and scatter slacked lime on the floor and perches. Any kind of oil or grease will kill lice on fowls; but that which is thin, is most readily applied, and most readily spread over the body. Dipping the chicks in tobacco-water will kill the vermin, but is likely to make the fowls sick and drooping for a while. Snuff scattered among the feathers, will thin off the lice. Wood ashes should be provided for the fowls to dust themselves in, and if flour sulphur is mixed with the ashes, it will be useful. Sulphur scattered in the nests of setting hens will tend to prevent them from getting lousy.

Experiments with Potatoes.

Messrs. Editors—Seeing a statement in your paper of Dec. 6, 1855, of the cultivation of potatoes by the use of guano, on the sandy lands in the vicinity of Albany, and regretting with you that none of those using this fertilizer could give the actual increase of crops by the use of it, I thought I would give you my experience the past season with that and other manures on potatoes.

I had a lot containing ten acres of much worn sandy land, that had been under cultivation near fifty years, and probably but little manure of any kind had been applied to it.

The last crop previous to this, was oats in 1853. They were so short that I had to use rye straw to bind them with. Being satisfied that it was a waste of labor to cultivate it longer without manure of some kind, I let the lot remain idle in 1854, having failed to get a catch of clover with the oats. Sorrel and a species of June grass partially covered the surface. In June 1854, I plowed it quite shallow, and harrowed it smooth. In August and September I drew on 400 loads of swamp muck, taken from low ground, that had the appearance of having in ages past been the channel of the Mohawk river. From the shape of the land around this spot, by the shifting of the course of the river, it formed an eddy, and at the overflowing of the river a portion of the decayed vegetation, leaves and mud, was here deposited at each overflowing, until it became filled up about on a level with the water in the river at half banks full. I dug to the depth of eight feet, and did not reach the bottom of the deposit. The deeper I went, the richer appeared to be the muck. I make this statement of the character of the muck used, that others who may use swamp muck may judge of its quality by comparison with such as they may get.

The muck was spread, and remained on the surface of the ground during the winter. In the spring it was well harrowed to spread it more evenly, and plowed under about 8 inches deep. On 4 acres, I sowed 1200 lbs. of Peruvian guano, which cost in Utica sixty dollars a ton. On 2½ acres I put 25 common wagon loads of manure from the cow stable. The whole field was then well harrowed with a new long-toothed harrow, and marked out 3 feet each way. The lot was divided by a wagon road through the center. The east side of the road where the guano was put, was planted with Early Pinkeyes—the west side, 1 acre Carters, and 4 acres Rock Whites (an early variety.) On this side the manure was put, and in addition a large handful of coarse bone dust to each hill on the five acres, leaving trial rows at intervals. The bone dust was also applied to one acre of the land that had the guano sown on. This acre, and a few rows beyond it, had in addition to the bone, a handful of unleached ashes on the top of each hill. One acre had nothing but the muck.

To ascertain the product of each kind of manuring, ten hills were selected of each plot, as near an average as possible, the produce weighed, and calculation made from that for the yield per acre. I intended as stated before, that the rows should be 3 feet apart each way, but I got them a little farther than that. To ascertain the exact number of hills to an acre, I measured with a tape line twenty rods by eight, and counted the hills, which proved to be 4,284. The result:

Yield of Pinkeyes per Acre.

Muck and guano, ...	171	bushels.
Muck, guano and ashes,.............	165	do
Muck, guano, ashes and bone,.........	157	do
Muck only, ...	131	do

Yield of Whites per Acre.

Muck, Bone and Manure,.............	135	do
Muck and bone,.........................	116	do
Muck only,..............................	98	do

Yield of Carters.

Muck, manure and bone,...............	90	do
Muck and manure,......................	72	do

I was not satisfied with one weight of ten hills in the result between the guano, ashes and bone, but tried four different lots of ten hills each, with about the same results, and took the one that made the least difference between the different manures. It is beyond my knowledge of the results of chemical action, to account for a less crop with the addition of ashes, and still less by the addition of a handful of bone dust, the land being rather the best of the two in favor of the ashes and bone. Will you, Messrs. Editors, give your views on the subject?

About 12 bushels of the bone was used per acre, cost in Utica, 30 cents per bushel.

You will perceive by the above statement, that nine dollar's cost per acre of guano, added to the crop 40 bushels over muck only—the addition of a handful of unleached ashes reduced the crop 6 bushels, and the addition of a handful of bone to the guano and ashes, reduced the crop 8 bushels more. On the part planted with Whites, the handful of bone at a cost of $3.60 per acre, increased the crop 18 bushels over muck only, and the 10 loads of manure with the handful of bone per hill, increased the crop 37 bushels per acre. I think the land planted with the Whites was not as good before anything was applied to it, as the part on which the Pinkeyes grew.

I am aware that the above experiments are not sufficient to determine the relative value of the different fertilizers used, but by making these known to the public, some of my brother farmers may be induced to improve upon this experiment, and give the result hereafter for the benefit of us all. James A. Dikeman.
Marcy, Oneida Co., N. Y.

Our correspondent will accept our thanks for the results of his experiments. It would have been interesting to have known what the land produced without muck or manure of any kind. It is evident that this "much worn sandy land" had not, relatively to other ingredients, been impoverished of potash during the "fifty years" it was under cultivation; for while potatoes remove from the soil more potash than any other crop, the Peruvian guano which contains so little potash, gives a fair increase, while the addition of ashes, containing much potash, gives a no greater but rather a less yield.

Why the addition of ashes should decrease the crop six bushels per acre, we do not exactly understand. Unleached wood ashes, lime, &c. will set free the ammonia of guano, and should never under any circumstances be mixed with it. If the guano, however, was thoroughly incorporated with the soil, and the ashes afterwards spread upon the surface, we should not expect that they would liberate the ammonia, faster than it could be absorbed by the soil, or assimilated by the plant. It is possible, nevertheless, that in a sandy soil, this may be the case, and that the unleached ashes proved injurious by driving off the ammonia of the guano—its most valuable ingredient.

In Mr. Coffin's experiments on potatoes (see Country Gentleman, vol. 6., p. 318) unleached ashes, applied in the hill, injured the plants and diminished the yield *one half*. May they not have slightly injured the plants in the above experiment?

We should expect little or no benefit the first year year from *coarse* bones. Why they should prove *injurious*, however, is more than we can account for, especially while with the *Carters*, they *increased* the crop eighteen bushels per acre!

We apprehend the real cause of these anomalies lies in the defective method of ascertaining the yield per acre. Ten hills, or the four hundred and twenty eighth part of an acre, is far too small a test plot to give accurate results. Every one who has had any experience in making agricultural experiments, knows that a variation of one pound might easily occur in digging or weighing the potatoes—and this one pound gives seven bushels per acre, or a bushel more than the variation between the muck and guano, and the muck, guano and ashes. J. H.

Fruit-Grower's Society of Western New-York.

The Annual Meeting of this society, held on the 8th and 9th days of the present month, notwithstanding the intense cold weather which kept many away, was an eminently interesting and successful session. Nearly all the twenty-three western counties were ably represented, and the collection of fruits, for a *winter exhibition*, was probably never before equalled. A single collection of winter pears (from Ellwanger & Barry,) contained over forty varieties, many of them in excellent eating condition. Most of the fruits consisted of apples, and among the principal exhibitors of large collections, were H. E. Hooker & Co., Hooker, Farley & Co., Ellwanger & Barry, J. W. Seward, and Frost & Co., all of Rochester; F. W. Lay and R. H. Brown, Greece; Stone & Cook, for several cultivators in Oswego County; J. J. Thomas of Macedon; John Donnelan, of Hanford's Landing; J. M. Mattison, of Tompkins County; T. Stillman, Dunkirk; E. W. Sylvester, of Lyons; and J. Park, of Gates, Monroe County, who presented fifteen sorts, half a bushel each, of very large and handsome specimens. A. Pinney, of Clarkson, exhibited Catawba grapes, in a state of most perfect preservation, with all the *bloom* and apparent freshness seen when growing on the vine;[*] and also several other fruits. C. L. Hoag, of Lockport, furnished a good collection of several sorts of winter pears. A collection of fifteen sorts of apples were presented from A. G. Hanford, Waukesha, Wisconsin. Charles Lee, of Penn Yan, exhibited nearly a bushel of the finest Wagener apples we have seen, most of them measuring about three inches in diameter. James H. Watts of Rochester, presented, as usual, a basket of beautiful Northern Spy apples. The King, or Tompkins County King, from J. M. Mattison, and others, attracted much attention, and received high commendation for its excellence and productiveness.

The number of members in attendance was quite equal to that of any session of the American Pomological Society, and the order which prevailed, and the deep interest which was manifested in the discussions, was never excelled in any meeting of the kind we have ever attended. The deliberations were mostly confined to the subject of planting fruit trees on an extensive scale, or for market; and the facts which were poured in from all quarters, furnished strong confirmation to the opinion, that while the art of selecting proper sorts, cultivating properly, and marketing to the best advantage, is yet in its infancy, it promises more profit for an indefinite futurity, than any orther crop now cultivated in western New-York. The region embraced by the Society was shown to be unexcelled and perhaps unequalled for the successful growth of most fruits; and since the wheat crop has become so uncertain, the probability becomes greater that a main portion, at least, of profitable cultivation of the soil, will be the extensive raising of the best sorts.

We intend on a future occasion to give at some length, some of the interesting facts developed during the discussions, in relation to the various points here alluded to. It is intended to publish a volume of the Transactions of the Society, which is to contain the valuable facts collected from all sources by the Society, and which will doubtless constitute a rich repository of information in relation to fruit growing, and which will be sent to all the members, and to any others who remit to the treasurer the annual fee of one dollar.

[The present officers are, J. J. Thomas, of Macedon, Pres't.; H. P. Norton, of Brockport, Asa Rowe, of Sweden, and E. C. Frost, of Catherine, Vice Presidents; J. B. Eaton, of Buffalo, and H. E. Hooker, of Rochester, Secretaries; and W. P. Townsend, of Lockport, Treasurer.]

Osage Orange Hedge.

Having an old fence to replace, how soon can I depend on having an efficient hedge, if the plants are set next spring? An Inquirer.

We saw last summer at Rochester, an Osage hedge, four years old, that constituted the only barrier between a much frequented public road, and a fine garden—it was amply sufficient for the purpose. It was more than four feet wide at the bottom, and a little over four feet high. It had been very freely cut back in its early growth, so as to give a dense and wide bottom,—a most important operation in the treatment of all young hedges. The cutting back was done twice a year, and the hedge had received the best cultivation.

On the rich soils of central Illinois and in Iowa, powerful hedges have been made in *two years*; the best treatment being given, and the plants cut back as often as they continued to make a vigorous growth in each year.

Guano on Corn, Wheat and Potatoes.

Messrs. Editors—During the past season I made a few experiments with Guano, upon Wheat, Corn and Potatoes. Upon the corn I put it in the hill, covering it first with a little earth before planting the corn. The corn come up good and looked greener, and grew faster than that portion of the field which was not guanoed, and yielded better corn. On another field of corn, treated in the same manner, there was no difference in the yield, but the corn was a better color when it was young.

On the wheat I sowed the guano, early in the spring broadcast, about 250 lbs. to the acre. The wheat soon changed color., and grew rapidly, but in harvesting it, there was no difference in the yield.

On the potatoes I sowed part of the patch before planting, and harrowed it in, and part put in the drill, leaving the rest without any upon it. There was no apparent difference in one part of the field over the other in the yield. J. H. Strong. *Blooming Grove, N. Y.*

Bread—One of the most important household rules is, not to eat new bread, for it is expensive and unwholesome, and does not afford near so much nourishment as bread two or three days old.

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[*] Preserved simply by hanging up, on the vine, in a cellar of the proper temperature and degree of dryness.

Inquiries and Answers.

Agricultural Books.—Our subscriber at *Youngstown, Pa.*, whose question on this subject last November, has been inadvertently neglected, will find in C. M. Saxton & Co.'s advertisement, p. 285 Ann. Reg., 1856, a list of works, comprising many of the best that have ever been issued on Agricultural subjects. We shall cheerfully supply him with these, or he can order direct from the publishers.

Properties of Gas-Tar.—By vote of the "Sinclearsville Farmers' Club," I was requested to institute an inquiry through the columns of your paper, in regard to the value of coal-tar or gas-tar, as it is called, in the preservation of wood, fence posts, &c. Will some of your contributors who have tried it, oblige us with a statement of his experience, with information as to where it can be obtained—at what cost, and all other useful particulars. W. W. Henderson, Sec'y. *Sinclearville, N. Y.*

We have never used gas-tar for preserving fence posts. We have, however, tried it thoroughly on wood used for other purposes, where constantly exposed to moisture and air, and all the other influences for decay. Its preservative power has proved remarkable. It was applied, *hot*, with a brush in two or three successive coats. Perhaps this would be insufficient for fence posts, where an exterior coating merely, would not answer. If heated in a potash kettle, and as many posts thrust in as practicable, no doubt the wood would become very effectually saturated. Unless, however, the tar could be purchased quite cheaply, the cost of this preparation would be considerable, as large quantities would be absorbed.

Gas-tar can be had at all establishments where gas is made from coal. Sometimes it may be had at a low price, but this usually depends much on the demand and supply, and can be only learned by local inquiry.

Crackers.—*C. F. W.*, *Union Mills, Ind.*, inquires for a "first rate recipe for making crackers." He has never seen any of home manufacture, equal to the purchased article, but would like to.

Chinese Potato—*J. M. W.* Tubers of the Dioscorea batatus can probably be procured in the spring, of Mr. D. Boll of New-York city. We would, however, advise you to curb "your impatience to be doing something with this potato," and be content with Carters, Mercers and "Sweet Carolinas," at least until you can obtain a plant of the Dioscorea at something less than a dollar.

Stocking a Farm—*M. G.*, *Volinia.* We would not advise you to stock your farm with sheep of any breed; as a general thing they do not do well on "low bottom lands." You will find that the introduction of a good Berkshire, Essex or Suffolk boar will make a great improvement in the common run of swine.

Taxidermy—*J. D. I.* You will find an answer to your question, as to the best mode of preparing birds, &c., for a cabinet, in the first vol. of the Country Gentleman, p. 292, or in The Cultivator for 1853, p. 180.

Egyptian Wheat.—*J. M. W.* If the plant you refer to, is the one we have seen under this name, it is not worthy of cultivation for any economical purpose. We have seen it grown only as a curiosity. The seeds should be planted in the spring in hills like Indian corn.

Wheat Drills.—Having been a subscriber to the Cultivator since its commencement by Judge Buel, I now regard it as an old friend of nearly 20 years standing, and am free to say that it improves on further acquaintance; hence my reluctance to discontinue its intercourse. Can you inform us through the pages of the Cultivator, how wheat drills stand the test of trial north and west, from disinterested testimony? Some of us Southerners are rather dubious about the policy of buying; fearing that we might be gulled, as we were in several kinds of reapers which we bought. The writer of this has proven to his cost, that there is much humbuggery in *some* of these reaping machines. D. H. H. *Chuckatuck, Va.*

We have been much among the wheat-growers of this and other States, and have heard no complaints against wheat drills. We believe they are found to answer all *reasonable* expectations. We must say, however, that we know many intelligent wheat farmers, who contend that wheat sown broadcast and covered with a cultivator, stands the winter better than that which is drilled in. Will our correspondents give us their experience with wheat drills?

Spring Wheat.—Which variety of wheat should you think the best adapted to this section—the Fife, Black Sea, or Canadian Club—where to be had, and price. S. E. B. *Westminster West, Vt.*

Will some of our Vermont readers give us their experience with these varieties of spring wheat.

Guano.—Please inform me what kind of guano is the best and where I could obtain a genuine article, and no deception about it. W. E. *Pine Plains, Dutchess Co., N. Y.*

Peruvian guano is the best. You can get the genuine article from any of the respectable dealers in New-York. We do not think there is much adulteration in Peruvian guano.

Mud as a Fertilizer.—The coves along the river (Thames) abound in mud, which as a fertilizer, most of my neighbors consider valueless. Will you inform us through the Cultivator, how, if at all, it may be made available? N. Dustin. *Montville, Conn.*

If any of our correspondents have used this mud as manure, we should be pleased to hear from them.

American Short-Horn Herd Book, Vol. II.—R. R. G., Stanford, Ky. This is a large octavo volume of over 600 pages, with more than fifty portraits, got up in a style every way worthy of the subject. The price is $6. with 50 cents additional to prepay postage when it is sent by mail. Address the author, Lewis F. Allen, Esq., Black Rock, N. Y. This work should be in the possession of every owner of Short-horns, and all our Agricultural Societies should obtain it, for the use of their committees.

Manure and Seed Drill Combined.—In reference to the inquiry which appeared in a late number of the *Country Gentleman*, our attention has been called to a machine which plants corn and deposits plaster, or any similar manure, with it in the hill at the same time. It is made by Joshua Woodward of Haverhill, N. H., and is said to do the work better than it can be done by hand.

Planting Locust Seed.—In a recent number of your valuable journal, you recommend Honey Locust as capable of making a strong hedge with little care. I have adopted your suggestion, and planted a nursery also to supply plants for the breaks. There appears to be a difference of opinion regarding the mode of treating these seeds, and I have to appeal to you or your corresspondents for information. I was told by a gardener of some note, to scald both Yellow and Honey locust seeds, and to plant them in the fall; since then I have been told that they probably will perish during the winter. The soil is a sandy loam. Information on this subject will probably interest many. D. A. *Washington City, D. C.*

The seeds of the Yellow Locust need scalding to cause them to germinate. They remain in the water some hours after it has cooled, and the swollen seed only will grow. The process must be repeated on the unswollen ones. If planted in autumn, these swollen seeds would be liable to rot. Honey Locust seed do not need scalding, and should be planted in spring.

Black Apple, &c.—Please inform me through *The Cultivator*, where I can obtain the Black Apple, the

Sweet Quince, and the Black Rose, and oblige Eli V. Clark. *West Andover, O.*

The Black Apple, and several varieties of black roses may be procured at the larger and more extensive nurseries. We do not know a sweet quince, although the Portugal is less astringent than the common varieties.

"Is it necessary that a tree when transplanted should be placed as it stood before, towards the points of the compass?" *J. V.*

For common or small sized nursery trees, it is of no consequence, as among thousands we have seen set out and without one in five hundred dying, no pains whatever was taken to secure the same position. But in large trees, it is a matter of great importance—for a tree whose bark has been from the sun ten years or more, may be injured or killed if this is brought round directly in front of the hottest solar rays. We have seen some kinds of ornamental trees only six years old destroyed in this way. But our observations are too limited to say what trees suffer most, and what sorts least, by such change in exposure, nor at what age the danger commences. We invite the attention of planters to this subject.

Orchard and Rye Grass.—In regard to the inquiry on orchard and rye grass, their difference, &c., I would refer our "Friend of Progress," to the American Farmer's Encyclopedia, page 574, for the best description of these grasses, the climate and soil best adapted to their growth, &c. I have had but little experience with either, but have seen large quantities grown in Pennsylvania, where it is sown with other grasses, more for pasture than for hay. The seeds can be obtained in Philadelphia, of Buist, Rogers & Co., and Landreth, or of R. L. Allen, New-York. Price from $2,00 to $2,50 per bushel. W. F. Sands.

Draining on to Others' Land.—A. H. informs us that he has a piece of land, the surface water from which had always passed off through a culvert in the line wall between him and a neighbor. Thinking that his lot would be improved by underdraining, he procured and laid his tiles so that the water would pass off through the culvert under the wall, where the surface water had always passed off, not supposing for a moment that he would thereby do his neighbor an injury, but rather a benefit, inasmuch as there would less water flow from the drain than from the surface. But his neighbor thought differently, and immediately made an embankment on his side of the wall, so as effectually to prevent the water from passing through the culvert on to his land. Our correspondent asks—"Is this, on his part, a legal act?" We are not sufficiently versed in the law to decide this question. Perhaps some of our friends, who are "learned in the law," will answer it.

Cabbage for Stock -Please give us the value of cabbage for feeding stock, compared with hay or corn—also the best manner of storing it for winter use. s. c. *North Springfield, Vt.* [Will some of our readers answer the above?

Shanghais.—Can you or any of the many contributors, inform me through the columns of the Cultivator, where I can procure the real Shanghai fowls—full breed—and price for one or by pair? Any information on the above will be most gratefully received by a subscriber. h. e. l. [Any one who has the above fowls, can have the privilege of our advertising columns to answer the inquiry.]

To Make Ewes Give Milk at Lambing Time.—Feed them for ten days previous, with soaked bran and carrots, twice each day, and give them a good warm stable, and I think that inquiry made in a number some time since will be answered, in reference to raising lambs in the winter season. h. a.

☞ Can any one inform J. B., Oregon City, Ill., where he can procure a pair of pure blooded mastiff or Newfoundland pups?

Extracts from Correspondence.

Tea Wheat.—I saw in the Country Gentleman of Nov. 15th, information asked in regard to the comparative value of Tea Wheat with other varieties. As to raising wheat, I can say nothing only from hearsay. I have always heard the farmers speak well of it. As far as flouring is concerned, I can speak from experience, and say the true Tea Wheat is *A, No.* 1. It can't be beat by any spring wheat that I ever ground, for quality and quantity. Black Sea Wheat is the poorest flouring kind that has come under my observation; the berry is hard, and flours a little better than Canada Corn. It bears no comparison with Tea Wheat for flouring. The other varieties mentioned, I have not ground enough to know much about. Miller. *Battenville, N. Y.*

Michigan.—Extract of a letter from Ionia county—"We have in this part of Michigan, known as the Grand and Maple River Valleys, land that will equal any of the Hudson, Mohawk, or Genesee flats, and the price varies from fifty dollars to fifty cents per acre, according to location and improvements. Corn crops this season, are abundant. Wheat, however, was somewhat injured by being grown, which will have a tendency to affect the price of our wheat and flour in the eastern market. Corn has grown this year taller than I ever knew it. I had one field that would average eleven feet in height; the longest stalk I have measured, is twelve feet four inches; and ears set from six to seven feet from the ground. The potato crop was heavy, and not affected with the rot."

Potato Experiment—Seeing an experiment with potatoes in late No. of Co. Gent., I am induced to give you mine, hoping it may be of some use to your readers.

Reading the challenge of I. W. Briggs in the Rural New Yorker, I adopted the following method: I cut the potato so that each piece would contain two chits or eyes—put one piece in a hill. The ground, which was rather poor, was manured with two wheelbarrow loads of well rotted barn-yard, mixed with one of leached ashes. This manured thirteen hills. The pieces were dropped, and a hand-full of plaster to a hill, and then covered. Planted June 13th.

One potato, weight half a pound, planted six hills which produced 80 tubers, weighing 18 lbs. Potato known here as "Log Cabin"—not affected with rot. J. H. B. *Newton, Ct.*

Sprouted Wheat for Seed.—In reply to a request in our issue of Oct. 25th, for information as to the results of using sprouted wheat for seed, a correspondent in Michigan writes us as follows:—"Without going more than from three to five miles from our residence we could point out to you ten or a dozen fields, where the wheat crop is making its appearance most ridiculously or most lamentably, according as your mood might be to laugh at or to pity the sowers of such seed. One field we could show you which has been plowed up or gone over with the cultivator in order to have it sown sufficiently thick with better seed. Out of one town, we believe, we could furnish more than a score of witnesses who could testify *from their own sad experience*, that wheat which has sprouted, is not reliable as seed."

Draining with Pine Plank.—Jno. McReed inquires as to the economy of using pine plank for underdraining. That in a great measure depends upon the location. If he lives in a pine region, where stone are scarce, why pine plank would answer very well, be quite lasting, economical, and speedily put down With us, where small stone are plenty, and pine scarce stone are the most economical. J. W. L. *Kingwood,*

Estimating Hay in Bulk.—A correspondent, in answer to an inquiry we recently published, says—"For timothy and blue grass it will require seventeen cubic yards to make a ton. Clover hay will require

512 feet, or 8 feet square. This is as near as can be ascertained by measurement."

A Very Good Yield.—One of my neighbors, Leister Smith, received the *first premium* at our County Fair, for the best five acres of corn. The yield was 425 bushels of shelled corn, estimated at 70 lbs. in the ear for a bushel of shelled corn. H. S. *Steuben, Ohio.*

Large Ruta Bagas.—Having noticed in the Co. Gent. of Nov. 16, an account of large Ruta Bagas raised by Mr. Ireland, I thought I would say that this can be "out-turniped," and beat. Mr. Belden Case of this town, (Johnstown, N. Y.,) raised this year a quantity of Ruta Bagas, some of which we weighed. One weighed 24 lbs. with the top or leaves on, and another one with the top trimmed or cut off, weighed 20 lbs. We have buried nearly all of them, but when we take them out of the ground, we will weigh 7 or 10 of them, and report to you the aggregate. A Reader.

Seeing an article in your paper which states that Mr. Ireland raised this season, seven Ruta Bagas which weigh in the aggregate 98 lbs., the largest 16 lbs., 8 oz., and the smallest 10 lbs., allow me to say I believe I have beaten him this year. I selected 7 Ruta Bagas, and after carefully cleaning off all the earth and roots, their aggregate weight was 110¾ lbs.; the two largest weighing 18½ each, and the smallest 12 lbs. I sowed the seed the 7th of May: the 24th of June I transplanted them into spots where the worms had taken the onions, taking care to break off the tap root. I also raised some large carrots, one of which weighed 8 lbs. John Cape. *Sherbrooke, C. E.*

Farming in Chester Co., Pa.—We may reasonably infer from the facts stated in the following extract of a letter from Willistown, Chester Co., Pa., that notwithstanding the long period the soil there, has been cultivated, it yet possesses virtue enough, when properly managed, to produce remunerating crops. Our correspondent says:—The crops of wheat, corn and oats, were heavy in this county (Chester) generally, but hay was not a good crop, and is selling in Philadelphia now at from $1.25 to $1.50 per 100 lbs., according to quality, though some very inferior sells for much less. Potatoes were also a good crop.

The average crop of corn per acre in this township is, I think, about 60 bushels, oats 45, and wheat near 30 bushels. On many farms the average is much above these figures. My farm contains 102 acres, which is near an average size for farms this near Philadelphia (15 miles.) I had 6¼ acres of wheat, which averaged 29 1-10 bu. per acre—3 acres, in one lot, of corn produced 269 bushels—11 other acres of corn averaged 50 bushels. D. E.

A Field for Emigration.—A correspondent, recently removed to the West, has thought proper to communicate to us his reasons for choosing a location in *Scotland Co., Missouri,* instead of in Iowa, as he appears to have intended. He states that he wished to go no farther west of the Mississippi, than necessary to obtain a certain amount of land for a limited sum of money. He found such a difference in prices, that he would be obliged to go three times the distance in Iowa, that he would in Missouri to secure a like location at the same cost. His purpose being to raise stock, he considered the slight difference of climate another circumstance in his favor. Timber was to be had at much lower rates. "The reason why this is not settled by southern emigrants," he adds, "holds good for the future. Northerners have also avoided it, and the section of country thus neglected, comprising two tiers of counties, and from forty to sixty miles wide, is unsurpassed for natural advantages by tracts adjoining, now much more generally filling up. It has been partially settled for about twenty years, and is now taking a new start. Any quantity of land yet to enter, a little west of this. Old farms to be purchased at fair rates all around."

Work for Winter.

There are many of the operations of the farm, which can be carried on in winter, quite as advantageously, when there is good sleighing, as when there is good wheeling; and those farmers who are accustomed to "*take Time by the hair*," as Kossuth said; who *drive* their work, not suffering their work to drive them, will have the sleigh in order, and calculations made for the first sleighing.

Now is the time to have drain tile hauled, so that they will be on hand in the spring, when the traveling is bad; and when the wagon, alone, would be about a load for a team. Tile are heavy things; and if one is obliged to haul them any distance, unless the traveling is good, the operation will be somewhat expensive.

I am obliged to haul my tile twenty-four miles. My calculations for ditching were made in the fall; and as soon as the sleighing became good, all other business was suspended, and the team started for tile, when they were able to haul from ten to twelve hundred two inch tile at one load. Yesterday I hauled the last load. To haul the same amount on wheels, would have cost me more than double the time, and three times the amount of the wear of the team. On the next spring, when the ditch is ready for tile, instead of being obliged to go twenty-four miles, after four or five hundred—which would be a heavy load—they will all be at hand.

Farmers A. B. and C. have told me, as they have seen my loads of tile, "I ought to get a few thousand; but have not sold my grain, as yet; and am moneyless; and I have concluded to have some bass-wood or elm sawed into plank for ditching, instead of tile."

My reply is, my grain is not sold; and I was obliged to hire the money to purchase my tile. I intend to haul some bass-wood and maple logs, and sell the lumber that is made from them, and pay for my tile; and save myself the great displeasure and needless expense of repairing drains which will be stopped in a few years, when filled with wood.

Now is the time to haul grain to market, when the distance is considerable; and have it left in store, until the market prices suit, if one is not satisfied with the prices when grain is delivered.

Now is the time, when the sleighing is good; if one lives at a distance from mill, to have all the grain ground, and brought home, that the teams and stock will need, until grass comes. Now, a team will haul forty or fifty bushels, at one load, with ease; and it will occupy no more of a farmer's time to carry fifty bushels at one load, than it would to take six bushels.

I have noticed, scores of times, that some farmers always go to mill, when the traveling is the most impassable, of every other season of the year. When the mud is about as deep as it can be, they will start for mill, with a few bushels; and when the traveling is good, they will go directly by the mill, with no load.

Yesterday my team hauled fifty bushels to mill. To day they take a log to the saw mill, and bring home the grist—losing no time in waiting for the grist to be ground

Now is the time—if one has any trees to remove—to clear away the snow and leaves; and cut a trench about them, with a spade; and in one cold night, a ball of earth will freeze sufficiently thick to enable one to remove a tree of good size, with safety. I have removed evergreens, in this way, twenty eight feet in height, and six inches in diameter, with more than one ton of earth about the roots, in a solid ball, with no apparent injury to the trees.

Now is the time to read—write—and *think*, and lay plans for the coming season; and to get all the operations of the farm under way, so that when seed time comes, the attention and energies may all be directed to that object. *Drive* all operations of the farm; and never suffer ourselves to be driven by them, is an eligible motto; and those who are actuated by this motto, usually succeed the best.

Now is the time to perform a hundred or more little jobs, which may as well be done now, as to wait until warm and pleasant weather, when they must all be done at one time; and sometimes, at a great and needless expense for the want of a little forethought and calculation. S. Edwards Todd. *Lake Ridge, Tompkins Co., N. Y.*

Management of Cattle.

Trite and worn-out subjects, are irksome to read, but there are so many who neglect to practice what they *do* read—so many new beginners in farming, and so many who do not read what is first placed before them, that it is often useful to repeat suggestions that have been made since the day that domestic animals were first used and subjected to the will of man.

The breeding and management of cattle are not only important processes in our domestic economy, but they are almost necessaries of life in civilized society. This is peculiarly the case in relation to cows; for her offspring, her milk, her butter, and her flesh, are all objects of profit; and even her hide, bones, and offal, are matters of consequence. This is so deeply impressed upon all northern farmers, that it often urges inconsiderate but ambitious owners to attempt out-stripping what they think the slow operations of nature, to injure their stock by putting their heifers prematurely to breed, thus destroying the stamina necessary to a strong constitution, entailing upon them a feeble and almost worthless issue—exhausting the powers of life, and often occasioning many and various disorders.

Akin to this injurious and unprofitable practice, is that of keeping too large a stock. The first effect of this is pinching them in their food; the second, stinting them in their growth. They are unhealthy, and cost more to fatten them afterwards; they do not arrive so early at maturity, and they grow unruly and mischievous through hunger, leaping over and breakfences. Instead of being kept on the farm where they would enrich the soil by their manure, and be objects of beauty as well as utility, they have to obtain a stinted and precarious subsistence by the road-side, though objects of persecution by every ferocious dog that is near them, and still more so of savage boys and idle men, as well as the cause of ill-will to a neighborhood; of injury to those who are not their owners, and a nuisance to all. We say nothing of the danger they are to railroads, the increased amount of taxes that such a large number bring upon the farmers, and the saving that a less number would effect. It is useless to add to this, how much larger, sleeker, and handsomer your oxen would be—how much more milk, butter, cheese and veal, your cows would give you—how much better and higher price your beef would bring, and how much less labor, care and expense it would be to keep your animals. It is no small advantage, when butchers and drovers are around, to know exactly where to find them, instead of having them roving over the country where if they are not lost entirely, they cost as much as they are worth to run after and find them. Instead of having your steers bring eighty dollars per yoke at two years and a half old, they bring seventy at three and a half—instead of your cows bringing a calf worth five dollars when she is two years old, she brings one worth two dollars fifty cents when she is three years old, and instead of your cows making 150 lbs. of butter and 100 lbs. of pork in a season each, they make 75 lbs. of butter, and fifty of pork, and are unfit to be turned off for beef until taken up and dried off six months, and fed to their value in hay and corn. If a farmer's object is to make as much dung as possible, he ought to know that the dung of a small stock is equal to that of a large one, if it consumes the same quantity of fodder; and if he objects to pasturing his young stock, that his farm is not large enough, he ought to learn to put less in meadow, and more in pasture, and sell stock in the fall (when generally in demand,) if it cannot be wintered. A few acres of ruta baga, or corn sown for fodder, will however, remedy this complaint; and if this is not sufficient, let him shelter his stock in winter, and keep his provender from under their feet, and there can be no doubt that two-thirds, if not one half, of his meadow land will be enough for him to mow. The injuries that cattle receive from each other, when they are fed and lodged together in a yard, ought alone to be a sufficient reason for tying them up in the barn and stable; but add to this the exposure to cold, wet, storms, the trampling of hay into the dung—the comfort of a dry, warm bed, the preventing the strong from stealing the food of the weak, and of the fodder being staled on when eating or when ruminating, make a combination of circumstances that ought to reach the understanding of every reasonable man.

I lately watched a number of calves that were being wintered, and among which the owner had placed a yearling heifer, who of course was master of all the rest. She would start out in the morning to water, after eating what hay she wanted, and walk along a well trod path, through snow that was often a foot in depth; after satisfying her thirst, she would stand in the path, chewing her cud, for more than half the day, waiting for her owner to furnish the next supply of hay; during all this time the more feeble and helpless calves had to wait for the water, (for which they were suffering,) or make their way through an unbroken waste of snow, up to their bellies, and sometimes almost over their backs. It is useless to describe how much injury they sustained by this injustice. Their appearance in the spring fully indicated what they had suffered; and every observing farmer must in all probability have noticed that calves will die, rather than struggle for their rights under such circumstances. How much more sense of justice, honesty, and uprightness, the farmer, who witnesses such things exhibits, than the heifer herself, I leave to be estimated by him when he makes up his accounts at the end of the year.

To a man of correct or cultivated feeling, any such exhibit will be unnecessary; for the instincts of the brutal or unfeeling, the following calculation may be useful:

Value of a fat, sleek, healthy heifer coming to maturity, and in calf at 2 years, say,		$25.00
Cost of raising her—milk first summer,	$3.00	
Hay and ruta bagas, first winter,	5.00	
Pasture, second summer,	3 00	
Hay and ruta bagas, second winter,	6.00	
Cost of cow and calf in the spring,		$17.00
Profit,		$ 8.00
Value of a common heifer coming in at three years old, say,		$22.00
Cost the first summer same as before,	$3.00	
First winter on Hay alone,	5.00	
Pasture, second summer,	3.00	
Hay, second winter,	6.00	
Pasture, third summer,	4.00	
Hay, third winter,	7.00	
		$28.00
Loss, in three years,		$ 6.00

Add to this, that you may from the use of the ruta baga, have the same manure in two years that you get from hay alone in three years—that in every six years you may raise one more animal, (25,) besides turning your money to profit once more, and then you have the profit and loss on both sides. Holkham. *Friendsville, Susq. Co., Penn., 11th Mo.*, 1855.

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Bed Linen should be well aired before it is used. Keep your sheets folded in pairs on a shelf: closets are better than drawers or chests for linen; it will not be so likely to gather damp.

Grass, Corn and Oats.

Messrs. Editors—In a communication a few years since, to an agricultural journal, or to the Patent Office, I have forgotten which, I expressed an opinion that, for the profitable cultivation and growth of these three crops, no soil in this country could surpass the alluvion bottom lands upon the Connecticut river. A continuous experience with the cultivation of these crops upon this soil, has fully convinced me of the correctness of this opinion. The vaunted west may boast of her fertility—her oak openings, her broad prairies, her inexhaustible bottoms; but we have comparatively, a broken narrow belt interspersed upon the banks of this beautiful river, "The Rhine of America," which will bear off the palm for the production of the staple crops, which stand at the head of this article. We have no extensive lime-stone formation to give us wheat in abundance, nor does our climate admit of the growth of cotton, rice or sugar, (except what we extract from the maple ;) yet by the steady rotation of such crops as are congenial to our soil and climate, we are enabled to make reciprocal exchanges through the medium of trade and commerce, with our neighbors of the sunny south and the fertile west, so as to render us fair and honorable competitors for what constitutes a nation's strength, greatness, wealth—*the profits of agriculture.*

The drouth of the three summers previous to the last, so materially affected the grass roots of the old mowing lands, and killed out so much of the new stocking, that the last summer, though wet, was hardly sufficient to resuscitate the grass crop; and in common with all the country around us, we have not had a heavy crop of hay since 1851; though our bottom lands have yielded from one to two tons to the acre in these years; and with a return of a good grass season like 1850 and 1851, we shall again realize from two to four tons to the acre. The corn crop of the past season has not been so good as usual here, on account of the backward spring and wet summer. The oat crop was never better. Wheat, rye and barley, though but little sown, were passable crops.

My principle object in this brief article, Messrs. Editors, is, to give you a statement of a crop of corn and oats grown upon my little farm the past season, with the expenses and profits pertaining thereto; though the former crop was not so large by one fourth as I have frequently obtained with the same labor and expense, yet the price being one fourth more, it makes an equally good bargain.

From 13 acres, was harvested in Oct. last, 1600 bushels in the ear, of sound corn, and 24 bushels of soft corn. Though but little of it has yet been shelled, it is fair to count it at 800 bushels, exclusive of the soft, which cannot be shelled. I find by counting the cost, seed, labor, ashes and plaster, (though no charge for manure, except the hauling and spreading, nor should there be any as it was all made from the farm,) to be $28.10 per acre,—whole cost, $365.30.

Value of corn, 800 bushels, delivered at Railroad station 3 miles at $1.12½,	$900.00
" " soft, 24 bushels at 25 c.,	3.00
" 28 cart loads of pumpkins at 75 c. per load,	21.00
" stalks for winter feed of stock at " 3.00 per acre,	39.00
	$963.00
Expense, (including delivery of the corn at depot,).	365.30
Profits,	$597.70

within a fraction of 45.98 per acre, for taxes on, and use of land.

From 15½ acres of oats, was threshed by horse-power, in Nov. last,

1006 bushels, delivered at R. R. Station as above, at 50 cts. per bushel,	$503.00	
15½ tons straw, worth at barn $6,00 per ton,	93.00	
		$596.00
Whole cost of production, with delivery at Depot, $14,07 per acre,		218.09
Profits,		$377.91

or 24.38 per acre. The land on which these crops were grown, is valued at $100 per acre, which is about the price they command when offered for sale. It will be seen that these crops pay an enormous interest on the investment; but all crops are not as profitable; and then again we must have barns to house our crops, and a house to live in, a wood lot and pasture lands, the taxes must be paid on the whole, and when we come to bring all down to an average with the cost of keeping buildings and fences in repair, it deducts very materially from the profits of some of the leading and best crops. Yet, a man who knows how to make large and profitable crops without impoverishing the soil, and has a taste for these things, with good judgment, prudence and economy, will certainly find farming upon a good soil, profitable. But as you say, friend Tucker, more depends upon the *man*, than any thing else. Farming will no more take care of itself than other business. A close care and supervision is requisite, or the profits will not be found.

In the figures above, it may be thought that the value put upon the corn fodder is too low, and that of the oat straw too high ; but I will explain. Corn fodder, in good condition, is worth $6.00 per acre for winter feed, either for cattle or sheep; but the heavy fall rains so washed and damaged it the past season, it is not worth over half price, and I have valued it accordingly. The oat straw I have contracted to a straw-paper maker, taken at the barn at $6.00 per ton, and have weighed enough to know that it will turn out full one ton to the acre. It is true that all the straw and grain cannot be sold ; a part must be kept for home consumption, but it is no more than fair to count it all at the market value in getting at the profit or loss account.

And now, Messrs. Editors, one word as to the profits of Vermont farming in general, or what it might be made to be. The soil of this little state can be made to support 1,000,000 of inhabitants as well as it now does 300,000; and in view of all the advantages we possess, a ready market, healthful climate, pure water, good roads, schools and Colleges, it is surprising to me that so many of our young people catch the emigrating fever. If they would but take a rational and sensible view of things as they are, they would see that good upland farms can be bought here as cheap as any where at the west. A farm of one to three hundred acres, in many localities in Vermont, with good buildings, and stone fences, surrounded with permanent roads and bridges, churches, school houses, &c., can be bought at a price that, after counting the cost of all these improvements and advantages to the farmer, will hardly leave the soil at $1,25 per acre. A farm at this price at the west, must be taxed for all these things before it has them, and the proprietor must struggle for the want of them for a while at least, and happy will he be if his health is not prostrated or his life become extinct, before he gets ready to enjoy them. But "the march of empire is westward," and we restless mortals must fall into the current, and be wafted, for weal or for woe, to a haven we know not where. J. W. Colburne. *Springfield, Vt., Jan. 7th,* 1856.

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Advertising Prices.—A western correspondent says—"I like the plan adopted by Dr. H. Wendell of your city, of giving the prices of stock advertised for sale, and should be glad to see it adopted by all advertisers of stock or farm implements."

Notes for the Month.

☞ In Mailing this second number of The Cultivator for 1856, we desire to call the attention of all its readers to the vast amount of the most valuable matter, which we are enabled to compress within its limits. We hazard little in saying that, *in a single month*, this exceeds in respect to mere quantity, all the Agricultural and Horticultural contents of most of our cotemporaries, *whether weekly or monthly*, for two months. In respect to the ability of the sources from which they are obtained, we believe them at least unsurpassed—we think ourselves also warranted in adding *unequalled*, by any other publications devoted to Rural subjects.

All this is furnished for Fifty Cents a Year! Are there not more who are willing to undertake the comparatively slight exertion necessary to put it in the hands of Ten, Twenty, Thirty of their neighbors? We offer such clubs as these, in addition to the Cultivator, the Illustrated Annual Register for 1856—a work of which we are daily receiving the highest enconiums, and which has been universally pronounced worth far more than its retail, or single subscription price of 25 cents.

The following offer is made: To all members of Clubs, who have already received the Register, we will furnish the Cultivator and Register for fifty cents, to each additional members of their Clubs—thus constituting each individual in a Club, an agent to aid in its enlargement. It is not too late to procure very large additions, and we trust many who have never before made the endeavor, will be led by the facts above stated, to do at least *something* to increase the number of their fellow readers. You—whose eye is now lingering on this sentence, with the thought that you might perhaps secure one, or two, or ten names to share with you the advantages of possessing a reliable Journal—please carry out the thought in action, and you and your neighborhood, as well as we, shall be the gainers for it.

To those single subscribers—there are not a few of them—who are alone, or nearly so, at their respective Post Offices, we will send the number requisite to complete a club of Ten, say nine, or eight, or seven copies, as the case may be, of the Cultivator and Register, for Fifty Cents each, together with a copy of The Register to each one who has already paid 50 cents for The Cultivator only. We hope that they will not limit themselves to Ten or Twenty, because these happen to be Club numbers. A Club of *Eighty-eight*, received by the last mail before we write, from a single post office in this state, where we had but *Twelve* subscribers last year, will show how many there often are in one neighborhood, who would gladly take a paper, if its friends would but give it the requisite introduction to their notice.

For ourselves, we may say, that we are constantly made more and more deeply indebted to our friends for their generous efforts; and that, while we endeavor to manifest our appreciation of them, by some more or less material manifestations, we sincerely regret our inability, at the present low terms at which we supply our clubs, to reward their efforts in procuring them as we could wish. They, and all who take an interest in the great cause of Agricultural improvement deserve well of their country.

New-York State Ag. Society—Annual meeting at the Capitol in this city, Feb. 13th.

New-York State Poultry Society—Annual exhibition in this city, commencing on Tuesday, Feb. 12th.

New Rooms of the State Ag. Society.—The new "State Geological Hall," on State-Street, has been so far completed as to admit of the State Ag. Society's taking possession of the rooms allotted to them. They consist of an office and library room on the first floor of the east wing, and a lecture room and two galleries for their museum, 40 by 68 feet, in the rear building. They are as fine rooms as could be desired, and admirably adapted for the purposes to which they are devoted. For a view and more particular description of the building, see Co. Gent., vol. VI, p. 145. The Executive Committee held their first meeting at the new rooms, on the 10th inst., at which time the necessary arrangements were made for the annual meeting of the Society. Among the recent additions to the Museum of the Society, is a valuable collection of the products of California agriculture, received from Mr. J. Q. A. Warren, including samples of different kinds of wheat, barley, oats, broom corn, &c., on stalks of surprising length, for which the thanks of the board were tendered. We trust the time is not distant, when the beautiful rooms so liberally furnished by the State, will be filled by such a collection of the products and skill of American labor and genius, as will attract to the Museum of the New-York State Ag. Society, the attention of the farming community, not only of our own State, but of the whole Union.

To Advertisers.—We need only to refer to the number and standing of our Advertising patrons, to show that the advantages of the Country Gentleman and The Cultivator as Advertising mediums are pretty thoroughly understood. Going into entirely different circles of readers, it is believed that their combined circulation affords a means of reaching the better class of farmers through the whole country, excelled by no other publications, *at equally moderate terms*, of their own or any other class. Our prices will for the present continue as heretofore:—$1 per square of 12 lines, or 100 words, for each insertion in The Cultivator, and $1 per square for the first insertion, and fifty cents for each succeeding one in The Country Gentleman. Or, $1.50 per square for each insertion of the same Advertisement in both. As these terms admit of no deduction, Advertisers will please calculate the cost before ordering the insertion of their favors.

A Market for Straw.—As long ago as Nov. 17th last, we received a letter, which was accidentally laid aside, from a correspondent at *Rock City Mills, Saratoga Co.*, written on "paper made at one of Buchanan and Kilmer's mills in that place, entirely of *straw*." It is of very fair quality, firm in texture, sufficiently smooth in surface, and, while *buff* paper is in fashion, would be "hard to beat" in respect to color. Our correspondent adds: Scarcely any branch of manufacturing has directly added so much to the farmer's income; thousands of dollars being now annually paid them in this county, for what a few years since was not worth, and is not now worth for any other purpose, 10 per cent. of the amount they get. Two classes of farmers, however, do not avail themselves rightly of its benefits. One will not sell their straw, arguing that their land would be impoverished; the others sell all, and put the money in their pocket. Now the true way for both these classes, is to *sell*, and then religiously employ all the proceeds in the purchase of, or labor in procuring cheaper material for manuring or enriching their farms. Thus one load of straw, which could not make over a load of manure worth 50 cents, would buy nearly twice its weight of plaster, or would pay a man's wages, perhaps, half a month, in getting out muck, or gathering leaves, or carting turf from the roadside, or collecting ashes or hauling lime, as these various means are more or less in their reach. Let this real economy be practiced, and give the manufacturer a chance to get rich, the farmer a chance to get *richer*, and the farm to get *richest* of all. H. Van Ostrand.

Free Papers.—Editors are very frequently called upon to furnish reading rooms, societies, &c., with their papers, without charge; and the tax thus imposed on those who are good-natured enough to comply with these requests, is frequently very burthensome. We have suffered ourselves to be quite too frequently taxed in this way. But we have before us an application of this sort, which surprises us, coming as it does from one of our wealthiest agricultural associations. They have established a "Farmer's Reading Room," in one of our principal cities, and give notice that it is "provided with the principal agricultural journals in this country and Great Britain," and now ask us to "contribute a copy of our publication free of charge." We cannot do it, gentlemen. We heartily wish you success in all your efforts for promoting agriculture, but so long as most of your members are better able to pay for their papers than we are to provide them gratis, we must decline your invitation. If you have the honor of sustaining your establishment, we see no reason why you should not pay its expenses.

Sale of Fine Horses.—Mr. John Reber of Lancaster, Ohio, who sometime since bought the famous horse "Monarch," of Col. L. G. Morris, Mount Fordham, has recently purchased of the same gentleman, the well-known mare, "Fashion," two of her fillies, old Lady Canton and her stud colt Bronx, and several other fine mares, all in foal to Monarch—thus transferring to Ohio, the whole of Col. M.'s breeding stud, who we understand, was induced to part with them in order to make room for all his other stock on his Herdsdale Farm, to which place they will be transferred in the spring, and where he will confine his attention to the breeding of Short-horn and Devon Cattle, South Down Sheep, and Berkshire and Essex Swine. His Catalogue for this year, will be issued in April or May.

American Herd Book, Vol. III.—The approbation with which the 2d vol. of the American Herd Book has been received by the breeders of Short-Horns in this country, and the solicitations of many breeders to have a third volume in preparation, has induced Mr. Allen, the editor, to give notice of his intention to prepare a third volume, of the same size and style as the second, whenever the materials necessary for it shall accumulate. Those interested, can obtain a circular, giving all necessary information on the subject, by addressing Lewis F. Allen, Esq., Black Rock, N. Y.

Fraud in Peruvian Guano.—A subscriber in Pennsylvania writes us that a friend of his last fall bought a ton of Peruvian guano, No. 1, in Philadelphia, with which he was much pleased on account of its "strong smell." He spread it on his barn-floor to pick out and pulverize the lumps; and to his astonishment, in the course of a few days, the "strong smell" entirely disappeared. He then had a sample of it analysed, and it proved not to be worth more than $13 or $14 per ton. The writer says—"I found the bags were branded 'No. 1 Peruvian Government Guano.' This undoubtedly was a counterfeit—a base fraud. I have since found that the Guano was shipped to Philadelphia from New-York, and I have no doubt it was the famous Chilian guano under a new name." If the facts are as stated, the purchaser should give the name of the person of whom he bought it, to the public. The demand has become so extensive for guano and artificial manures, that great temptation is offered to dishonesty, and purchasers will find it for their interest to procure their supplies from persons of established integrity.

United States Ag. Society.—The Annual Meeting of this society was held at Washington City, on the 9th, 10th and 11th of this month. We have as yet seen but brief notices of its doings. It appears by the report of the Treasurer, that the total receipts from all sources, at the Boston Exhibition, amounted to $37,172.54—Premiums and expenses paid, $35,350,-42—leaving a balance of $1,822,12. The present funds of the Society consist of a claim on Selden, Withers & Co., Washington City, for monies deposited in their bank by a former treasurer, of $2,149,13, and cash now in treasury, $1,868,02. It was resolved to hold the next exhibition of the Society at Philadelphia in October next. We annex a list of the officers elected:

President—Marshall P. Wilder, of Massachusetts.

Vice Presidents—J. D. Lang, Maine; H. F. French, New-Hampshire; S. Brown, Massachusetts; J. J. Cooke, Rhode Island; John A. Rockwell, Connecticut; Dr. J. P. Beekman, New-York; George Vail, New-Jersey; Isaac Newton, Pennsylvania; J. W. Thompson, Delaware; Anthony Kimmel, Maryland; G. W. P. Custis, Virginia; H. K. Burgwyn, North Carolina; R. W. F. Alston, South Carolina; R. Peters, Georgia; C. C. Clay, jr., Alabama; M. W. Phillips, Mississippi; John Perkins, jr., Louisiana; Gen. Worthington, Ohio; M. L. Underwood, Kentucky; John Bell, Tennessee; Joseph A. Wright, Indiana; J. A. Kennicott, Illinois; T. Allen, Allen, Missouri; Roswell Babee, Arkansas; J. C. Holmes, Michigan; D. J. Yulee, Florida; Chas. Durkee, Wisconsin; P. Ord, California; W. W. Corcoran, District of Columbia; Jose Manuel Gallegos, New-Mexico; H. H. Sibley, Minesota; P. W. Gillet, Oregon; C. Lancaster, Washington Territory; E. Hunter, Utah; Bird R. Chapman, Nebraska.

Executive Committee—John A. King, New-York; A. L. Elwyn, Pennsylvania; D. Jay Browne, District of Columbia; John Jones, Delaware; W. H. H. Taylor, Ohio; Richard P. Waters, Massachusetts.

Secretary—W. S. King, Boston, Massachusetts.

Treasurer—B. B. French, District of Columbia.

Lewis Co. Ag. Society.—The Annual Meeting was held Dec. 20, when the following officers were elected for 1856: Lewis Stephens, President; John D. Lord, Jared Stiles, Jr., Norman Gowdy, Ellis Cook, Edmund Baldwin, David A. Steward, Vice Presidents; C. G. Riggs, Rec. Secretary; Leonard C. Davenport, Corr. Secretary; M. M. Smith, Treasurer; Joseph A. Willard, Edmund Baldwin, William Phelps, Rutson Rea, Abram I. Mereness, Executive Committee. A resolution was adopted, locating the County Fairs alternately at Lowville and Turin. The Society also passed a resolution in favor of holding the next State Fair at Watertown, and then locating it permanently either at Utica, Rome, Syracuse or Rochester. Premiums were awarded to Norman Gowdy, Lowville, for best acre peas, 50 bushels, $2,00; to Wm. C. Miller, for best acre corn, 87½ bushels, $3,00.

Orange Watermelon.—We have frequent applications for seeds of this melon, which we are unable to supply. If any of our friends have a surplus, which they wish to distribute pro bono publico, we shall be glad to aid them in its distribution, if they will forward it to us. A half-ounce package can be sent by mail for three cents.

Wheat Turning to Chess.—Quite a number of the correspondents of the *Michigan Farmer*, have been considerably exercised upon this subject during the past year; and it would seem from an article in the last number, from Mr. Wm. Anderson of Ann Arbor, that the believers in transmutation have been unable to find any one among the disbelievers who would offer a reward of $25, "to any one that can and will produce wheat from chess." Mr. A. asks:

"If the anti-chess gentlemen know that wheat will not turn to chess, where is the risk of offering small premiums to test and settle this dispute? But they appear unwilling to prove their faith by their works."

We do not wish to interfere in this controversy; but this question having been thoroughly discussed in our paper, commencing more than twenty years since, and continued for years, we gave it a very careful examination, and came to the conclusion, as did a multitude of farmers who read that discussion, that wheat could not be made to turn to chess. In that discussion, one writer, and a very worthy man, stated that he could produce chess from wheat without difficulty. In answer to this our worthy and venerable friend David Thomas of Cayuga, immediately offered the writer alluded to a reward of $50, if he would do what he believed himself able to do so easily—produce chess from wheat. Col. Chapin of Ontario, also offered a reward of $50 to any one who would perform this prodigy. It is sufficient to say that these rewards were never claimed, although great efforts were made to produce the feat necessary to obtain them. Following these examples, and in answer to the call of Mr. Anderson, we offer a reward of $50, to Mr. A. or to any one else, who will produce to us ocular demonstration that he has grown chess from wheat. If the believers in transmutation will set themselves to work to *prove* it, by endeavoring to effect the transmutation, they will ere long change their views, or at least convince themselves that it cannot be proved.

Albany Co. Ag. Society.—The annual meeting of this society was held at the City Hall in this city on the 2d day of January—Hon. A. Osborne, President, in the chair, and G. I. Van Alen, Sec'y. After the reading of the report of the Treasurer, from which it appeared that there was a balance of something over $1,400 in the treasury, the Society was re-organized under the act of April 13, 1855, and the following officers chosen for 1856:

President—Levi Shaw, of Rensselaerville.
Vice-President—Richard Kimmey, Bethlehem.
Secretary—Charles R. Wooley, Albany.
Treasurer—Leonard G. Ten Eyck, Bethlehem.

Directors—Henry Spawn, Guilderland, and John Burhans, Coeymans, for one year; Daniel D. T. More, Watervliet, and Horace E. Robbins, Westerlo, for two years; Robert Thompson, Albany, and Henry Crewell, New Scotland, for three years.

Ohio State Board of Agriculture.—The annual meeting of this Board was held at Columbus in December. William H. Ladd of Richmond, was chosen President of the new Board for 1856—Geo. Sprague Cor. Sec'y—J. K. Greene, Rec. Sec'y, and Lucian Butler, Treasurer.

Question of Law.—M. R. F. says "that, as the law is interpreted here, (Herkimer county,) the owner of land, through which a stream runs, has no right to use the water for irrigation or for domestic purposes, because there is some trifling machinery on the stream below." If such is the law, it would seem that it ought to be so amended that each man might take as much water as required for his own use, from his own land, without being liable to any one for damage. Our correspondent says there are numerous cases in his vicinity where farmers are thus deprived of the use of water, to their serious injury, and he thinks the subject should be brought before the legislature. He would do well to interest the member from his district in tho subject.

Fine Apples.—Our friends of the Church Family of Shakers at Niskayuna, will please accept our thanks for the basket of beautiful apples sent us last week, among which were superior samples of the Baldwin, Spitzenburgh, R. I. Greening, and a very large and fair apple, name unknown, the scions of which were received from the vicinity of Cincinnati. Their apple crop the past season, amounted to about 600 barrels.

Black Raspberries.—The common black raspberry is cultivated to a considerable extent around this city. Judge Osborn, of Watervliet, informs us that he sold $176 worth this year, from 2000 stools. The stools are in rows 6 feet apart, and 2 feet in the rows. He cultivates them as he does corn. When the new wood is about 18 inches high, he cuts off a portion from the top so as to make it branch out. The fruit in this way is near the ground, and is of better quality, besides being easier to pick. With this mode of cultivation, the Judge says, an acre will yield 6000 lbs. of raspberries. We observed that the land was well-mulched with corn stalks.

Plan of Farm.—If our correspondent, David Dickson, of Winfield, Indiana, will send us a plan of his farm, with the amount and position of woodland, hill and lowland, the height of the upland in different places, variation in soil in different places, &c., and also state whether the barn could be placed on either side of the house, or, in other words, if he will furnish a map of the farm as it is by nature, and by present improvement, we shall endeavor to furnish him a plan for laying out his fields, and furnish a suitable rotation of the same.

Advertising Agencies.—Those who wish to advertise in our journals are cautioned against sending their advertisements through any "*Advertising Agency*," as they will not thereby secure their insertion. These agencies are becoming decided nuisances; and we have long since declined to insert any thing from them unless accompanied by the amount necessary to pay the charges. The best way in all cases is for the person who wishes to advertise, to send his advertisement directly to the papers in which he wishes it published. It will not only cost him less, but he will secure its prompt insertion.

An Illinois Farm.—We see it stated that Col. John Wentworth, ex-M. C., and present editor and publisher of the *Chicago Democrat*, has a 2,500 acre-farm, about 12 miles from Chicago, for which he has been purchasing, for a year or two past, the best thorough-bred domestic animals of all kinds, to be procured in the country—including Short-Horn and Devon Cattle—South Down and Merino Sheep—Berkshire and Suffolk Swine, together, we believe, with a good stock of the fashionable varieties of Poultry. Among his later purchases were several fine Short-Horns and Devons from Messrs. Becar and Morris, and the prize yearling short-horn heifer at the recent Illinois State Fair, for which it is said he paid $500. The demand for improved stock is rapidly increasing in Illinois and the west, and we doubt not that Mr. Wentworth, in endeavoring to supply it on an extensive scale, will find himself abundantly rewarded for his liberal expenditures.

Leeds and Grenville Pomological Society.—At a meeting held at Lyn, Canada West, on the 6th of October last, an association was organized under the above title. Wm. Beattie, Esq. was appointed President, R. Coleman, Jr. Vice President, and David Nicol, Secretary. At a subsequent meeting, held on the 2d Wednesday of December, a constitution and bye-laws were reported and adopted, so that the society is now in good working condition. At the October meeting there was a handsome exhibition of pears, apples and other fruits—among them some very superior seedling apples.

N. Y. State Poultry Society.

☞ The Third Annual Fair of the N. Y. State Poultry Society will be held at Van Vechten Hall, Albany, on the 12th, 13th and 14th of Feb., 1856, at the same time that the N. Y. State Ag. Society has its Annual Meeting. The premiums offered amount to $450. Premium Lists, and any information desired, may be obtained by application to

E. E. PLATT, Sec'y.,
Jan. 24—w3tm1t Ag. Store, 369 Broadway, Albany.

New Chinese or Japan Potato,

DIOSCOREA *Batatas vel Japanica*. Orders are received, and will be filled in rotation by the subscribers, for this new and valuable esculent. Price $3 per dozen, or $20 per 100 tubers. Printed description with direction for its culture will be furnished to purchasers.

J. M. THORBURN & Co.,
Seedsman, &c.,
Feb. 1—m2t 15 John Street, New-York.

Tree, Shrub, Hedge, and Evergreen Seeds.

A COLLECTION of about 100 varieties.

Norway Spruce,	$1.50	per lb.
Scotch Fir,	1.50	"
Evergreen Cypress,	1.50	"
Black Austrian Pine,	3.00	"
Weymouth Pine,	3.00	"
Chinese Arbor Vitæ,	3.00	"

Magnolia Macrophylla, Osage Orange, Cedar of Lebanon, &c. &c.

J. M. THORBURN & CO.
Seedsmen, &c.,
Feb. 1—m2t. 15 John Street, New-York.

TO NURSERIES.

WM. R. PRINCE & CO., Flushing, N. Y., will forward their new Wholesale Catalogue for Nurseries, to applicants. Also the following Catalogues: No. 1. Fruit and Ornamental Trees, Shrubs, and Plants; and No. 2. Roses, Dahlias, Bulbous and Herbaceous Flowering Plants, &c., both 40th edition. No. 3. Extra large Fruit Trees, Evergreens, and other Ornamental Trees and Shrubs. No. 5. Garden, Agricultural, Flower, Fruit, and Ornamental Tree and Shrub Seeds. No. 6. Descriptive Catalogue of the Finest Strawberries. No. 9. Supplement Catalogue of Bulbous Flowers, New Dahlias, Pæonies, Chrysanthemums, Phlox, Carnations, and other Rare Flowering Plants. No. 11. Treatise on Culture of Chinese Potato, or DIOSCOREA BATATAS, on Licorice, Tanner's Sumach, &c.

N. B. 100,000 Osier Cuttings, of 8 finest kinds, at very low rates, and a few hundred Chinese Potato, or Dioscorea batatas, still remaining. Jan. 24—w1tm1t

CRANBERRY CULTURE,

THE subscriber has issued a circular in relation to CRANBERRY CULTURE, and will forward it to all applications without charge. Also will forward PLANTS, in a fresh state, by Adams & Co.'s Express, to any part of the United States, or by any other conveyance requested. Price $7 per 1000. When clubs are formed for a considerable quantity, a liberal discount made. Should any of the plants die out with fair usage, other plants will be sent to fill all vacant places without charge. Address

SULLIVAN BATES,
Jan. 24—w&m3m Bellingham, Norfolk Co., Mass.

CRANBERRY PLANTS.

UPLAND AND LOW LAND VARIETIES.—Bell or Egg-shaped is the best variety to cultivate on damp, wet, or poor swampy land, where nothing else will grow, often producing from 200 to 300 bushels per acre.

Upland Cranberry—are more prolific, but smaller and superior fruit. They grow on poor, cold, unproductive land and hillsides in Canada. Plants of this variety will be for sale in May. Also,

NEW-ROCHELLE BLACKBERRY PLANTS.

Circulars relating to culture, Soil, Price, &c., will be forwarded to applicants by enclosing a postage stamp.

For sale by F. TROWBRIDGE,
Dealer in Trees, Plants, &c.,
Jan. 24—w&m1t New-Haven, Ct.

FLOWER SEEDS.

THORBURN'S Descriptive Catalogue of *Flower Seeds* for 1856, embracing every desirable variety in cultivation, (1000 sorts.) with directions for their culture, will be sent to applicants enclosing a stamp.

Also, *Wholesale* Price List of the above by the quantity, for Dealers.

Also, Catalogue of Tree, Shrub, Hedge, and Evergreen Seeds.

J. M. THORBURN & CO.,
Seedsmen, Nurserymen, &c.,
Feb. 1—m2t 15 John Street, New-York.

CHOICE POULTRY

FOR SALE. Gray, White, Black and Buff Shanghais, and Black Spanish, all warranted pure blood—and EGGS from the following varieties: Spangled, Brahmas, Gray, White, Black, Buff, and Black Spanish, and Silver Poland, at $3 00 per dozen. All orders promptly attended to.

Fowls $5 each—$10 per pair.

Address GEORGE ANDERSON,
Jan. 31—w2tm1t* No. 56 Schuyler-St., Albany, N. Y.

FISH GUANO.

THE Narragansett Manufacturing Co. of Providence, R. I., are prepared to execute orders for their Fish Guano. They have prepared their guano after two methods; one by chemically treating, cooking and then drying and grinding the Fish to a powder. This is put in bags and sold at $45 per ton. For the other variety the fish are prepared as above, (with the exception of drying and grinding;) and are then combined with an absorbent which is in itself a valuable fertilizer; and sold at $2 per barrel, containing about 200 lbs. This compost is of great strength, and must be a very efficient fertilizer, as it is composed in great part of simple flesh and bones of fish.

Dr. Charles T. Jackson, of Boston, has made an analysis of the Powder, and says:

" It is similar to Peruvian Guano in composition, with the exception that the ammonial matter is dried flesh of fish, and not putrified, so as to be ammoniacal. It will, however, produce ammonia by decomposition in the soil. One hundred grains of this manure, dried and finely pulverized, was submitted to analysis, with the following result:

ANALYSIS.

Ammonial matter, (flesh of fish,)	48-00
Phosphate of Lime,	33-90
Carbonate of Lime,	7-60
Sulphate of Lime,	6-40
Potash and Soda,	4-10
	100-00

Respectfully your obedient Servant,
CHARLES T. JACKSON,
Assayer to the State of Massachusetts,"
Boston, July 21st, 1855.

Dr. Jackson's opinion of our Guano is expressed in the following Note:

BOSTON, March 9th, 1855.

S. B. HALLIDAY, Esq.—Dear sir:—In reply to your letter, I would state my entire confidence in the superiority of a properly prepared artificial guano, made from fishes, over that of the natural guano of birds, obtained from the coast of Peru.

It is obvious that more of the nitrogenous, or ammonia producing substances, exist in fish prepared after your method, than are found in any guano, and hence the artificial preparation will go further in the fertilization of a soil.

The ammoniacal salts act chiefly in bringing the foliage into a healthy and luxuriant condition, and thus causes the plant to absorb more of the phosphate and other necessary salts and substances from the soil, and more carbonic acid from the air. The carbonate of ammonia also, is a solvent for humus, and it quickly saturates any injurious acid salts that may exist in the soil, and forms from some of them valuable fertilizers.

Respectfully, your obedient servant,
C. T. JACKSON, M. D., State Assayer, &c.

This Manure is offered to agriculturists with the assurance of its becoming one of the most popular to be obtained. The Company are ready to establish agencies at such points as are desirable for the convenience of Farmers. As the supply for this season is rather limited, the Company esteem it a favor to have orders forwarded early to enable them to lay down at their agencies the requisite quantities in proper time for use,—orders may be addressed to the Company at Providence, or to R. H. PEASE, Albany, N. Y. or R. L. ALLEN, New-York.

S. B. HALLIDAY, Agt.
22 West Water St., Providence, R. I.
Jan. 24—w6t—m6m.

C. M. SAXTON & CO.'S

AGRICULT'AL BOOK ROOMS,

140 FULTON-ST., NEW-YORK.

☞ C. M. SAXTON & Co. have removed to their new and commodious Rooms, No. 140 Fulton Street, where, in addition to their large stock of Agricultural Books, may be found a *FARMER'S READING ROOM*, supplied with all the Agricultural Journals of the United States, and the best Agricultural and Horticultural Periodicals of England, France and Germany; the free use of which they tender to all their friends. Jan. 3—w1t

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Thorburn's Wholesale Catalogues

FOR 1856, of Vegetable, Flower, Trec and Agricultural Seeds, Spring Bulbs, &c., &c., *for the use of Dealers*, are now ready, and will be forwarded on application.

J. M. THORBURN & CO.,
Jan. 3—w1am3t—m2t 15 John St., New-York.

SEED GROWER WANTED.

TO a competent person, accustomed to raise Vegetable Seeds, with some means, this is a favorable opening.—Good land will be furnished for the purpose to any extent with a large, certain and unfailing market for the crops, at remunerating prices. Apply to

J. M. THOBRURN & CO.,
Jan. 3—w4tm1t. 15 John Street, New-York.

To Farmers and Gardeners.

YOUR attention is called to the Manures manufactured by the Lodi Manufacturing Co. from the contents of the sinks and Privies of New-York City, and free from offensive odor, called

POUDRETTE AND TAFEU.

Poudrette is composed of two-thirds night soil and one-third decomposed vegetable fibre. Tafeu is composed of three-fourths night soil and one-fourth No. 1 Peruvian Guano.

These manures are cheaper and better adapted for raising Corn, Garden Vegetables and Grass, than any other in market. Can be put in contact with the seed without injury, and cause Corn and seeds to come up sooner, ripen two weeks earlier, and yield one-third more than other manures, and is a *sure preventive of the Cut Worm.*

Two bbls. Poudrette or 100 lbs. Tafeu, will manure an acre of Corn in the hill. Tafeu 1¾ cents per lb. Poudrette $2.00 per bbl., or $1.50 for any quantity over 7 bbls., delivered on board vessel or Railroad, free from any charge for package or cartage. A pamphlet, containing every information, sent, postpaid, to any one sending their address to

THE LODI MANUFACTURING CO.,
Jan. 17—w&m4m 60 Courtlandt-st., New-York.

To Long-Island, Jersey and N. Y. Farmers.

THE subscribers, having the exclusive right to all the night-soil emptied from the sinks and privies of New-York City, for five years—and there being more than they wish to use themselves, they are prepared to furnish to Farmers at their landings up any river, creek, or bay, where vessels can come, the *crude night-soil*, just as received from the scavengers, and empty it into carts, or furnished tight tubs, in which it can be carried on to the land—for from 10 to 18 cts. *per bushel*, according to distance and circumstances, or persons sending their own vessels will be loaded at the company's wharves.

Now is the time to get a manure more powerful, more forcing, and cheaper than any in the known world. Cargoes will vary from 1000 to 8000 bushels, according to quantities desired. Apply to

THE LODI MANUFACTURING CO.,
Jan. 17—weow4tm4t 60 Courtlandt-st., New-York.

FARMS FOR SALE

In Orange, Rockland, and Westchester Counties, N. Y.

75 IMPROVED farms, from 10 to 60 miles from the city, containing from 8 to 500 acres, at from $1300 to $25.-000, according to size, location and improvements. Also farms to exchange for city property. Also elegant country seats and village residences on the Hudson, commanding magnificent water and mountain views. A small amount of purchase money required. Apply from 10 to 12.

C. H. OLIVER.
Sixth Avenue, corner Fortieth St., N. Y.,
Dec. 27—w&m1t* Opposite Crystal Palace.

JUST PUBLISHED,

THORBURN'S RETAIL CATALOGUE for 1856, of Vegetable, Herb, Grass, &c., Seeds, will be mailed to any address on application.

J. M. THORBURN & CO.,
Jan. 3—w2tinjf&m—m3t 15 John Street, New-York.

The Largest Newspaper in the World.

WITH its recent enlargement, the NEW-YORK OBSERVER enters upon its thirty-fourth volume, not only the largest religious paper, but the largest newspaper in the world. It is published weekly, and devoted to religious and secular intelligence of every variety. Its sheet is arranged so as to constitute *two perfect newspapers*, one religious and one secular, each as large as the "Country Gentleman." It is not sectarian in religion, nor partisan in politics, but designed for a pleasant and instructive companion in every evangelical christian family.

In addition to its long tried editorial corps, its columns are enriched by some of the best writers of this country, and by able correspondents in every important country in the world. Its secular part has now a department of Agriculture, of Science, and of Commerce, the last embracing a full and accurate report of the money, produce, cattle and other markets, up to the time of going to press.

The conductors intend to spare no effort or expense to make it, as it always has been, unsurpassed by any other journal.

Terms, 2.50 a year in advance. Each new subscriber will be entitled to a Bible Atlas, gratis. Specimen copies of the paper will be sent by mail, free, on application to the office, 138 Nassau-st., New-York.

SIDNEY E. MORSE & Co.,
Jan. 24—w2tm1t. Editors and Proprietors.

ONLY $3000!

GRIST-MILL, CUTLERY, MACHINE SHOP.—A spacious new building, standing on a new dam across New Haven River, near the Station on Rutland and Burlington Railway—together with a smaller building on said dam, an old Saw Mill, and Privilege on a dam near, a Shed and small Dwelling House, and Lands, all connected, will be sold on reasonable terms.

The location is good for a Flouring Mill, Saw Mill, Plaster Mill, or for the manufacture of Cutlery and any Machinery. Fuel cheap. Address SOLOMAN JEWETT,
Middlebury, Vt.,
or SOLOMAN W. JEWETT,
Jan. 17—w2tm1t Racine, Wis.

Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.
Dec. 27—w&mtf

GARRETT'S SEEDLING.

THE subscriber now for the first time offers for sale a few barrels of this new and superior Potato. It is a seedling of his own raising, is very productive, and not liable to rot. He presents it to the public with confidence that it will be found in all respects a valuable acquisition, and refers all interested in the subject to an editorial notice in the COUNTRY GENTLEMAN for Nov. 15, page 316.

Price, delivered in Albany at the Railroad or Steamboat Landing, $9 per barrel. Address S. C. GARRETT,
Nov. 22—w4tm3t* South Westerlo, Albany Co., N. Y.

ICHABOE GUANO.

JUST RECEIVED by the brig Wave Spirit, direct from the Ichaboe Islands, a cargo of this superior Guano, (which is the first cargo arrived, since that brought by the ship Shakspeare in 1845.) This guano is now landed in excellent order, will be sold in lots to suit purchasers. Samples and analysis will be sent by addressing the Agent. As the quantity is small, early application will be necessary. Farmers who cannot remove what they desire, may have it remain on storage until April 1st, at 18¾ cts. per ton per month which includes Insurance.

Price $40 per ton of 2000 lbs.

A. LONGETT, Agent,
34 Cliff St., Corner of Fulton,
Nov. 1—w&mtf. New-York.

Excelsior Ag. Works, Ware House and Seed Store,

Old stand, 369 *and* 371 *Broadway*, *Albany*, *N. Y.*

RICHARD H. PEASE, Proprietor.

THE Excelsior Horse Power, Thresher and Separator.
do do Saw Mill.
do do Cider Mill, Improved, Kraus's Patent,
do do Cross Cut Saw arrangements.
do do Corn and Cob Grinder,

with a very full and complete assortment of Hay Cutters, Corn Shellers, Corn Stalk Cutters, Sausage Meat Cutters and Stuffers, and every other implement a farmer needs. The Seed Department is complete, and is attended by a man experienced in the business for the last seven years. For further information apply as above.

☞ A Descriptive Pamphlet sent by mail gratis, if desired.

Farin, Texas, Nov. 21, 1855.

Richard H. Pease: — Dear Sir: I have threshed this year for my neighbors over 12,000 bushels of wheat with one of your 2 Horse Power Threshers. I got the ninth bushel for threshing, and made over $1,000, clear of all my expenses, besides paying for my machine. S. JOHNSON.

Johnstown, Dec. 1, 1855.

Mr. R. H. Pease:—Dear Sir: The "Excelsior" Horse Power and Thresher, manufactured by you is as good a machine as can be made, and I threshed 500 bushels of oats in 10 hours, without *sweating my horses a hair*, and can do it *day in and day out.* I think I can sell 4 or 5 machines for you next season. JOHN V. N. MOORE.

Jan. 3—w4tm1t

"To those who have not Threshed their Grain, nor Ground their Corn, nor Sawed their Wood."

THE "EXCELSIOR" HORSE POWER, Thresher and Separator, and Saw Mill, which has a reputation second to no other machine in the country, is sold at the following named places:

Mayher & Co., New-York City.
Dwight & Peck, Coxsackie, N. Y.
Isaac H. Lefevre, Kingston, N. Y.
Dana & Co., Utica, N. Y.
E. J. Foster, Syracuse, N. Y.
J Rapalyee & Co., Rochester, N. Y.
H. Cooper & Co., Watertown, N. Y.
Shultz Bros., Johnstown, N. Y.
H. C. White, Buffalo, N. Y.
Jas. F. Clark, Cleveland, Ohio.
W. A. Gill, Columbus, Ohio.
John F. Dair & Co., Cincinnati, Ohio.
Sanders & Keith, Lexington. Ky.
Miller, Wingate & Co., Louisville, Ky.
F. S. Boas, Reading, Pa.
Armstrong & Co., Nashville, Tenn.
Louns. Orgill & Co., Memphis, Tenn.
Wm. M Plant & Co., St. Louis, Mis.
Hooker & Jones, Chicago, Ill.
S. G. Williams, Janesville, Wis.
E. Perkins, Fondulac, Wis.
Lefevre & Green, Milwaukie, Wis.
S. R. Fox, Madison, Wis.
Davis & Johnson, Hudson, Mich.
Wilcox & Chapprell, Adrian, Mich.
D. B. & G. C. Burnham, Battle Creek, Micl
D. O. & W. S. Penfield, Detroit, Mich.
Beach & McKeridge, Cold Water, Mich.
Jas. Wardrop, Pittsburgh, Pa.

And Manufactured by RICHARD H. PEASE, at his Excelsior Agricultural Works, Albany, N. Y. w&m1t

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Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. Sheppard, New-York—P. B. Mingle, Philadelphia—Byram, Pitkin & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w&m1y

Agricultural Books,

For sale at the office of the Country Gentleman.

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 Broadway, New-York.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Thresher, and Winnowers, and other Agricultural Machines.

May 24—m12t*

SHORT HORN BULLS.

THE subscriber offers for sale the following named Short-Horn Bulls. They are all superior animals, have fashionable, as well as very desirable pedigrees, and are nearly all registered in full in the 2nd vol. of the American Herd Book.

HAMPTON—560 A H. B.—Roan, calved Sept. 22d, 1854. Got by the celebrated prize Bates Bull Meteor, (11811) 102, out of Matchless by Ringgold 908—Ringlet by imported Bates Bull Duke of Wellington (3654,) &c., &c. See No. 560 A. H. B. Price $100.

2nd METEOR—956 A. H. B.—White, calved Oct. 8th, 1854. Got by Bates Bull Meteor (11811) out of imported Lady Liverpool by Mr. Bates' 3d Duke of York (10166)—Lilly by 2nd Duke of Oxford (9066)—Harmless by Cleveland Lad (3407) &c., &c. See No. 956 A. H. B Price $150

EARL CARLYLE—Roan, calved Sept 3d, 1855, got by imported Bates Bull Lord Ducie (13,181) 662 out of Duchess of Exeter by imported Princess Bull Duke of Exeter (10152) &c. &c.—see A. H. B., 2d vol., page 358. Price, $100.

DUKE OF CLARENCE—Red roan, calved Sept. 7, 1855, got by imported Bates Bull Lord Ducie (13,181) 662, out of Daisy 7th, by Duke 442—Daisy 4th by celebrated Wildame Bull Prince 841, &c &c.—see A. H. B., page 347 Price, $100.

The above prices are at least 100 per cent. less than animals of *equal value* can be purchased for otherwheres in this country.

P. S If desired, I will spare a few Females at favorable prices. Address Dr. HERMAN WENDELL,
Nov. 29—w6tm2t Albany, N. Y.

Short-Horn Stock for Sale.

THE subscriber has for sale five thorough-bred Short-Horn Bulls, that will be fit for service in the spring One of them took the First Prize, and another the Second Prize, at the late Provincial Fair at Cobourg.

These bulls were got by my imported bull, "Sir Charles Napier," bred by J. M. Hopper, Esq., Middlesboro-on-Tees, England. Sir Charles Napier was got by the famous bull "Belleville," (6778) also bred by Mr. Hopper. Belleville won the first prizes at the shows of the Royal Ag. Society of England, the Royal Irish Improvement Society, and the Highland Ag. Society of Scotland, in 1846, besides a challenge cup of 100 guineas value, and quite a number of other prizes at various other shows where he was exhibited.

I have a large herd of cows and heifers, and I may say that I have taken more premiums with them than any other man in Canada. Lady Elgin, one of the four that took the Herd Premium at the Fair of the United States Ag. Society at Boston, was bred by me. and another, "Miss Belleville," is the sister of Sir Charles Napier.

Those desirous of purchasing good Durham stock, would do well tomake me a visit. RALPH WADE, Jr.,
Dec. 20—w2tm2t Cobourg, C. W.

Little Giant Corn and Cob Mill.

THIS is doubtless one of the most important inventions of modern times, for the farmer and stock grower. Its simplicity and durability recommend it to every one desiring such a machine. It occupies but little space, and is easily operated by any farm hand Prices from $40 to $65. For sale at the Chicago Agricultural Warehouse and Seed Store, 45 Franklin Street, Chicago, Ill.

Dec. 13—w4tm2t HENRY D. EMERY.

PERUVIAN GUANO.

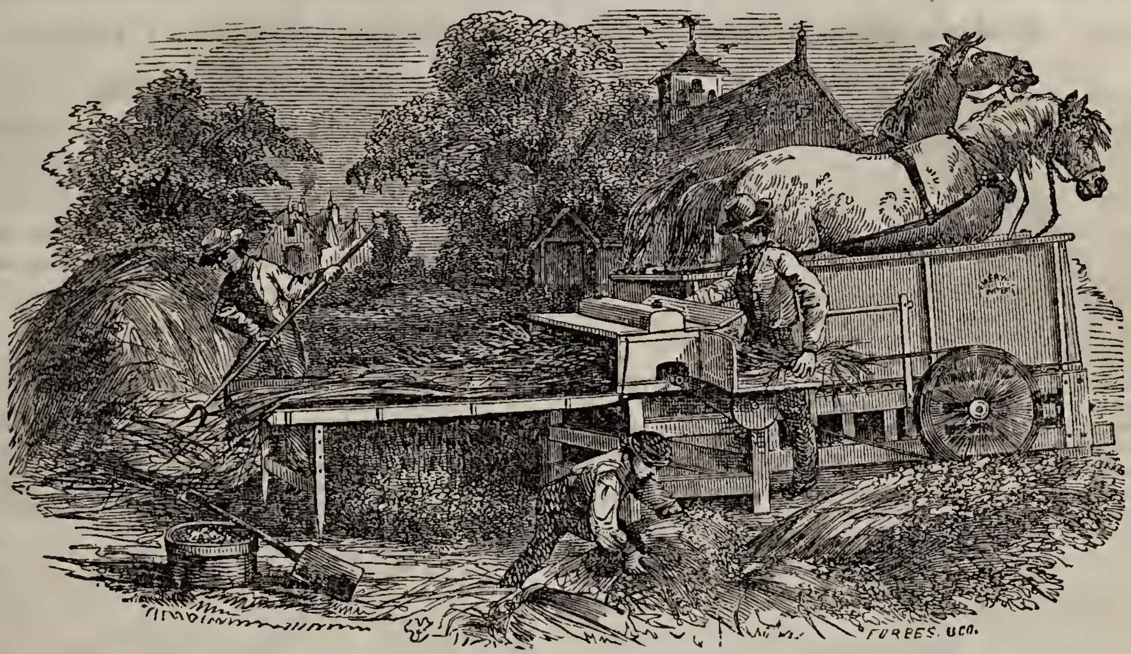
PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag. Price $52 per ton of 2000 lbs.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag. Price $43 per ton of 2000 lbs.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
New-York.

Oct. 11—mtf



ALBANY AGRICULTURAL WORKS,

ON HAMILTON, LIBERTY AND UNION STREETS.

WAREHOUSE, SEED STORE, AND SALES ROOMS
NO. 52 STATE STREET,
ALBANY, N. Y.

EMERY BROTHERS,

SOLE PROPRIETORS AND MANUFACTURERS OF

Emery's Patent Railroad Horse Powers and Overshot Threshing Machines and Separators.

ALSO MANUFACTURERS OF AND WHOLESALE DEALERS IN

AGRICULTURAL MACHINES AND IMPLEMENTS,

OF THE LATEST AND MOST IMPROVED KINDS EXTANT.

Dealers in Grain, Field, Grass, Garden and Flower Seeds, and Fertilizers.

THE Horse Powers, together with the great variety of LABOR-SAVING MACHINES, to be propelled thereby, being the leading articles manufactured by the proprietors, the attention of the public is especially called to them. Full DESCRIPTIVE ILLUSTRATED CATALOGUES containing directions, prices and terms of sale, warranty and payment, sent by mail, gratis, to all post-paid applications.

Upwards of Twelve Hundred sets of the above celebrated machines, have been made and sold in this city alone during the last twelve months, and without supplying the demand. The public may rest assured the reputation heretofore earned for their manufactures, shall be fully sustained, by using none but the best material and workmanship; and by a strict attention to business, they hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed.

As large numbers of Powers and other machines are being offered in various sections of the country, resembling those of the above manufacturers in almost every particular, it becomes necessary to caution the public against the deception, and to enable their own to be distinguished from all others, they would say, the words "*Emery's Patent*," are upon all the small wheels, "*Emery*," upon the links of the chain, and the name "*Emery*," in some manner, and all in raised letters, is cast upon some or all the iron parts of all their machines, beside the wood work being also stencilled, in a conspicuous manner, with the names of the proprietors and their place of business.

Warranty, Capacity, Economy, &c.

The Two Horse Power and Thresher, as represented by circulars, is capaple, with three or four men, of threshing from 175 to 225 bushels of wheat or rye, and the ONE HORSE POWER from 75 to 125 bushs. of wheat or rye; or both kinds of powers. &c., are capable of threshing double that amount of oats, bartey or buckwheat per day, of ordinary fair yield.

These Power Threshers, &c., are warranted to be of the best materials and workmanship, and to operate as represented by this circular, to the satisfaction of the purchasers, together with a full right of using them in any territory of the United States, subject to be returned within three months and home transportation and full purchase money refunded if not found acceptable to the purchasers. Jan. 3—w1tm1t

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Chicago Agricultural Warehouse and Seed Store.

Warehouse and Sale Room 45 *Franklin Street, between John and Randolph Streets.*

THE subscriber, formerly connected with the "*Albany Agricultural Works, Albany, N. Y.*," has opened a Depot in Chicago, where may be found at all times a complete assortment of

FARM MACHINERY AND IMPLEMENTS,

of most approved kinds—also a full stock of

GARDEN AND FIELD SEEDS.

Full catalogues furnished gratis on application.
Dec. 13—w4tm2t HENRY D. EMERY.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

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THE subscribers offer for sale a few Bull and Heifer Calves, the get of "Astoria," "Lord Vane Tempest 2d," "3rd Duke of Cambridge," imported, and imported "Earl Vane."

Catalogues, with pedigrees of the animals, will be furnished upon application to J. C. JACKSON, Esq., 111 Water street, New-York, or at the farm of the subscribers at Elizabeth, New-Jersey. B. & C. S. HAINES.
Dec. 1—m3t

EMERY'S

Patent Portable Horse Powers,

THRESHERS, Separators, Saw Mills, Corn Shellers, Feed Cutters, &c., for sale at 45 Franklin Street, Chicago, Ill. HENRY D. EMERY.
Dec. 13—w4tm2t

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To Farmers and Gardeners.

THE subscriber offers for sale a new and *very early* SEEDLING POTATO of his own raising, which for productiveness, hardiness, early maturity, and fine qualities for the table, is believed to be superior to any other variety in cultivation.

It has now been cultivated for four years, and every year has produced a large crop of sound tubers.

It is a white potato, and being larger and more productive than the "Early June," will be found particularly valuable for the market gardener, as it is quite as early as that variety. In testing the comparative value of this potato, the undersigned has made no attempt, by high manuring and extra cultivation, to produce a few hills of large potatoes, but in every instance it has been planted in the field with the "Early June" and other varieties, and in sufficient quantities to give it a fair trial; at the same time giving it the ordinary field cultivation. Under these circumstances, and notwithstanding the extreme drouth of 1854, it has in no season produced less than two hundred bushels to the acre, while in some it has produced three hundred.

Price $4 per barrel, delivered at the R. R. Depot or Steamboat Landing at Hudson.

References—S. K. Hogeboom and Wm. E. Miller, Esqs., Claverack. Address E. G. STUDLEY,
Claverack, Col. Co., N.Y.

Jan, 31—w2tm3t

BUSINESS NOTICES.

PREMIUMS TO AGENTS.

As an inducement to Agents to exert themselves to form Clubs, aside from the consciousness of the benefit they will confer upon their neighbors by placing such a journal in their hands, we offer the following list of Premiums to those who send us the largest amount of cash subscriptions to our journals for the year 1856, previous to the 10th of April next:

1. For the largest amount,. FIFTY DOLLARS.
2. For the next largest,.... FORTY-FIVE DOLLARS.
3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest,.... THIRTY DOLLARS.
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12. For the TEN next largest Amounts, Each a Volume of the Transactions N. Y. State Ag. Society for 1854.

Agents who compete for the above prizes must, in all cases, remit with their orders, at the rate of Fifty Cents for each copy of The Cultivator, and One Dollar and Fifty Cents—(the lowest club price, where ten or more copies are taken)—for each subscriber to the Country Gentleman.

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One copy, one year,........................	$2.00
Three copies, "	5.00
Five copies, "	8.00
Ten copies, "	15.00

☞ Payment must be made in advance—or fifty cents per year will in all cases be added to the above terms.

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For Twenty Copies, with Register for 1856 to each,................	$10.00

☞ Clubs need not necessarily take their papers from the same Post-Office—they will be sent to as many different offices as may be required.

☞ The money in all cases to accompany the order, and subscriptions invariably to commence with the January number.

The Illustrated Annual Register.

Two numbers of this work are now issued—for 1855 and 1856—and it will hereafter be published regularly, toward the close of each year; and every person who takes any interest in rural affairs should be careful to secure the work from its commencement. In a few years it will form a more valuable Rural Library than can be procured in any other shape for ten times the money.

Price—in paper covers—25 cents—Five copies, $1—Twelve copies, $2. Bound in muslin, 50 cents. *Sent by*

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We have to pay the United States postage on all papers to the British Provinces; and this we cheerfully do, to all subscribers who pay the single copy price of $2.00 for the Country Gentleman, and Fifty Cents for The Cultivator; but on all clubs, the U. S. postage must be added. Hence our club-terms to them for the latter will be—

20 copies and the Register to each,........	11.60
And for the Country Gentleman,	
3 copies,..................................	$5.75
10 copies,.................................	$17.50

☞ Great care should be taken to write the name and address of each subscriber distinctly, thus:
"*John Smith,....Lenox,....Berkshire Co.,....Mass.*"

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. IV. ALBANY, MARCH, 1856. No. III.

Management of a Milk Dairy.

We made a few remarks in reply to an inquiry from a correspondent on this subject, in the last number of our paper for December 1855. As the milk dairy in our country, is an important interest to numbers of persons in the vicinity of our large towns and cities, we feel disposed to devote still further space to the discussion of its management and profits, as tending not only to the private gain of those engaged in it, but as having a bearing on the health and convenience of those who are obliged to depend on the out-of-town dairies for their supplies of this indispensable element of daily food.

That a considerable portion of the milk daily supplied to the people of our cities, is abominably bad, is no secret to tell. In frequent cases, this is the fault of the men who supply it, in their management of the cows that furnish it, and from the wretched, poisonous food on which the cows are kept—to wit, still slops. In other cases it is still the fault of the dairymen, from the careless and insufficient way in which the cows are sheltered and tended, and the negligence and dirtiness with which they treat the milk when obtained.

To the first charge we shall give only a passing notice, by remarking that a man who will coop up any number of cows in a filthy barrack of pens, and feed them on the diluted slops of a distillery, for the supply of *wholesome*, *pure* milk to families, is dishonest, and criminal in furnishing an article of food, poisonous, unhealthy, and every way bad. He should be handed over to the courts and grand juries for public prosecution, and among the "counts" of the indictment, should be that of "cruelty to animals."

In the second place, the fault is in going into the business without either capital or skill in his business. We have seen milk dairies where the cows were unsheltered; miserably poor from short food; intolerably filthy from neglect; and as a consequence, giving but small returns to their owner; and the milk itself not fit for use; and, as a matter of course, the business given up after a short trial, because it *would not pay*.

Now—for we profess to know somewhat of the subject, from some years experience—we will show what a milk dairy *should be*, and how it ought to be managed, to produce *good* milk in abundant quantity, and to make it profitable for the proprietor.

In the first place, no one should engage in the business unless he have sufficient capital, not only to provide the number of *good* cows he can manage, but to construct or furnish the proper accommodations for them. The amount of capital will of course depend upon the number of cows he keeps, and the facilities he may have on hand for supplying with his own labor, and the labor of those in his employ, their subsistence.

THE BUILDINGS.

Were we to construct a *model* milk dairy establishment,—and such can be as cheaply done as an insufficient one, in the long run—we should begin by having a building with a row of stalls on each side of it, twelve feet wide at least—fourteen would be none too much—including the mangers, which should be two feet wide, and adjoin the center floor. The floor of these stables, on which the cows stand, should be raised for the width of seven feet back of the mangers; three inches above the floor in rear of the cows, so that all the stale and droppings from them, should pass off into a channel behind, and run off into a reservoir constructed for the purpose of holding it. This upraised floor would always keep the cows dry and clean. They could be bedded with straw, which is the best, if that article could be obtained cheap and plenty. If not, other coarse litter, or saw dust, will answer, and the cows still be dry and warm. Between these stables should be a passage of twelve feet for wagon or cart loads of hay, roots, meal or other fodder, to pass in, and to allow hand-carts to draw the food from the cooking-room to the mangers. Overhead should be ample storage for hay or corn fodder, while beneath, with occasional trap-doors to pass down and up, should be a deep well-walled cellar to receive all the roots, secure from frost, which are required for winter food. The stalls of the stable should be double, at least six feet and a half wide, with strong plank partitions between, and each cow secured to the *side* of her stall, and her manger portioned by itself, that she may be fed separately, and apart from another, as different cows require, at times, different food, in larger or smaller quantities, and different treatment, according to the condition they may be in, or the length of time they are from coming in, or to come in, or from her own peculiar habits or disposition—for all these have to do with the manner of their treatment and care. At one end of the building, or in the center, according to its extent, should be a room with a horse-power or steam engine, for propelling the machinery,—the latter we would adopt, if on a large scale. This machinery should prepare the food for the cows in winter, and, possibly, to a limited extent in summer. Adjoining the building should be a large yard or field—we would have *two* of them—of one to five acres each, according to the number of the herd.

SUMMER MANAGEMENT.

We are to suppose that the dairyman lives in the country, or at least so far out of town that land can be had to grow all the *green* food for summer and winter forage, which the cows will require, and to get the thing into due course, we will commence with the spring when they are turned into grass. In the first place, grass for pasturage should be abundant. If not, the deficiency in pasturage must be made up in other food. It is needless to say that the cows should be supplied with abundance of pure water, at any and all times when they incline to drink it. Here let us remark, that the cow is not endowed with reason, like ourselves, to know that water may be taken in advance, when they *do not* need it, to supply them when they *do* need it; but she requires it when her appetite craves it. She may refuse drink at one hour, and the next hour may drink three pails-full. She should be tried three times a day in summer, and twice in winter, at least, when she cannot go to it when she chooses. This deficiency in pasturage may be supplied by moistened cut hay and meal; by roots; or by green-cut grass or green corn-stalks. And this deficiency of pasturage *should* be supplied continuously throughout the grazing season, to give the cow all she requires to eat for the full flow of milk that you expect to get from her, and to make that milk a *perfectly healthy and good article*. During the warm season the cows should be driven to their stalls to be milked, for which each one has her own separate accommodation, and *always in the same place*. Here they can be fed their extra food. After milking they should be turned out into the yard for the night to enjoy the cool air, except in cold nights, or severe rains, when they should remain in the stable, at which time the stables should be thoroughly ventilated throughout the night. In the morning the same course of tying up and stabling should be pursued. There are two reasons for this tying-up process. The first is, that the cows are thus always manageable. The other is, it is the most convenient and the readiest way to do the work. Another thing in this matter of milking may be added: every cow should, as far as possible, be milked by the same hand day after day. They thus get accustomed to the milker's hand, and if any one of them have any little trick or peculiarity of her own, the milker knows it, and how to manage her. After the frosts come in the fall, the cows should not be turned out to pasture till the frost dries off. Frozen food is bad for cows; besides, they do not like it, but spend their time in walking about, treading down and breaking it and measurably spoiling it for eating afterwards.

WINTER MANAGEMENT.

The cows should be taken off the pastures early, that is, before the grass becomes withered, dead and cold, by the severe frosts; for such grass, although it will do stock and growing cattle good service, *will not make milk*. Now comes in play the actual service of your machinery for preparing the stored food. We would not have winter rye, or fall-sowed oats, for either fall or spring feeding. It will not pay. The leaves of these green grains are watery, cold, and thin food. There is but little substance in them, for giving either flesh or milk. They may do for young stock, or sheep, but milch cows require heavy, solid, yet moist food, for keeping up their flesh and producing milk, as the analysis of milk shows it to be heavy in the elements of strongy heart, food.

The machinery of the feeding room should be, after the horse or steam power, a stout cutting-box, for cutting both hay and corn-stalks; a root cutter, or slicer; a crushing mill for coarse grains, *if you can get such*, in case a grain mill is not near you; and two large steaming tanks near your boiler, for steaming the cut food and roots. We would here remark, that if you have steam power for your machinery, the escaped steam from the engine may be used for cooking the food; if not, a boiler must be had for the purpose. A pipe from the boiler, or the escape pipe, may lead into the bottom of each vat, and for such purpose a perforated false bottom must be laid three or four inches above the proper bottom of the cooking vat, that the steam after being introduced, may find its way throughout the entire mass of food above. The top must also be covered by a close shutter, to prevent the escape of steam and more readily to do up the cooking. Into the vat we should first put a layer of cut hay or stalks; then a sprinkling of meal; then a scattering of roots, and a trifle of salt; then the hay or stalks, and so on repeatedly until the vat is two-thirds or three-fourths filled, and then the cover over all on the top of the vat. The feed will swell, and possibly fill the vat to the cover by the time the mass is sufficiently cooked. When done, let it cool down to blood warmth, and it is fit for feeding. The two vats are for cooking and feeding from alternately. When one is fed out, the other is ready for feeding, and the empty one may be refilled and cooked, as before. Two good feeds should be given to the cows each day, morning and night; and an hour or two after each cooked meal, what dry hay or stalks they want, to *stay their stomachs*. But an occasional change may be necessary. The dairyman's observation and judgment must look to this. A feed of raw roots, or dry meal, may be necessary; (*raw* roots are cold, watery feed for milch cows, and much better *cooked;*) but in general, the cooked food will be most palatable, and better relished by the cow, as it will certainly produce the most milk. Let the water she drinks be *warm* also, if possible to make it warm without too great cost, *as warm as she will drink it.* Heat must be kept up in her stomach and body, and all the *cold* water she drinks must consume a certain amount of valuable food, to supply the carbon in her system to reduce it to its proper temperature, as *cold* water, or cold food, does not act *nutritiously* in the stomach, until so warmed and prepared. During the stabling season the cows should be let out of the stable every day for a little exercise. Cows must have daily exercise, or they suffer in health. If they stay out an hour or two in moderate weather, it will not hurt them, particularly if you have a large rack filled with straw in the yard for them to munch at—for they will eat straw now and then, as a change, although the straw will do them little good as a *nutriment*—but it *is* a *change*—and cattle like a change now and then, as well as people do, and it does them good. The water may also be in the yard, or under a shed, if more convenient than to have it in the building. In this way, everything the cow eats or drinks is prepared, the moment it enters her stomach, to do its office in supporting life, and producing flesh and milk. There is then no preparatory *animal* process of warming and assimilating the food for digestion, but the digestive powers go right at work and grind up the pabulum, for supporting the vital and lacteal systems. We have no doubt that this method of preparation of food, will increase the production of milk over that of unprepared, cold, and raw food, as three to two, and in some cases, as two to one. *Let your stables be well ventilated*, that the cows may breathe *pure* air.

QUALITY OF FOOD.

Every article of food should be of the *best* quality. The hay, whether clover,—and we would not have *much* of that—timothy or redtop, should be cut when "in the blow." The stalks should be cut when in the milk. If green Indian corn is cut up for winter food, it should be thoroughly cured, sweet and good. The meal should be of Indian corn, oats, rye, barley, or buckwheat—and ground fine; and all these should be mixed, if you have them. Corn meal, solely, is too heavy and heating; barley is next so; rye next to that; then buckwheat; and lastly, oats. We would not use over one-fourth of corn meal to three-fourths oat. The common offal of the flouring mills, such as middlings, ship stuff, shorts and bran, are almost worthless, for in the improved machinery of the present day, every particle of flour is taken out, and little or nothing but the bare hull of the wheat is left, an article but little better than basswood saw-dust. Years ago, mill feed was good for something; but not so now.

THE PRODUCTION OF FODDER.

This we cannot direct in detail. Much depends on your situation, the value of land, the price of labor, and other things best known to the dairyman himself. We take it he has brains enough to understand his business in that particular. We know that with properly husbanding his manures, he must have a large quantity on hand with which he can grow crops of hay, roots and grain. His men and boys who milk and care for the cows, will have spare time to work in the fields, and they can do much in growing them. The women, besides cleaning and preparing the cans for the milk, can assist in milking the cows. In fact, a milk dairy is a business of itself, as much as a work shop, a factory, or a farm, and must be *the business* of the place, wherever it is carried on to advantage; and at prices of three cents a quart in summer, and four cents in winter, in the neighborhood of our large towns and cities, the business is a good one. The dairyman should produce all he can within himself, and if prices are not too high, he can buy the balance. But, let him be afraid of this: the *starvation* or the *pinching* system *will not do*, nor *will it pay*. His milk will be inferior, and his customers will find it out; and a well fed dairy will always have the preference of customers over a starved one.

THE SUPPLY OF COWS.

This is a branch of the business so entirely dependent on the locality of the dairyman, and other circumstances connected with his business, that we can give no specific directions regarding it. When he can go out at any time within the circuit of a few miles, and buy more or less new milch cows to supply a deficiency in his dairy, he will do well to keep his cows from the bull, milk them until they cease to give six quarts a day—and such may not be the case until two or three years after calving—and then turn them off to the butcher, as, with the treatment above described, they will be fit for beef. If he cannot do this—that is, get his cows just at the times he wants them, and does not raise any calves—he may keep the *smallest, runtiest* bull he can find—anything in fact, that will get a calf, for the smaller the calf the better for the cow, so that it *be* a calf, (such a little runt of a thing will draw less on the milking qualities of the cow when in fœtus than a larger one,) and put his cows to the bull. In such case, once in eighteen months, or two years, will be often enough to let the cow breed, if she will give milk that long. But she should not give milk for full two months previous to calving. The animal system requires some rest. We have known a cow give milk for four or five years after calving, without going to the bull, or showing a desire to do so—and a good mess too—eight or ten quarts a day. Cows may be spayed, too, just after calving, and continue in milk several years afterward. But of one thing we can assure the dairyman; buying milch cows from *drovers* is a very uncertain business, as we have always found, when men sell their milch cows to a drover, they usually select their poorest milkers, or those with some shabby, malicious trick about them, that spoils them for their own use. If we were in the milk business, on a farm of sufficient size, we would raise our own cows, by keeping a bull of good milking blood, and saving the best heifer calves from our best milking cows. That *we know* to be a *certain* way. We have bred heifers especially for the dairy for a series of years, and scarce ever had a failure in producing the very best cows, possessing every desirable virtue which a first quality milking cow may comprise.

In addition to all the above enumerations, let the strictest economy, system, neatness, and punctuality in time and place, rule every movement throughout.

◆

Bed Curtains are unhealthy, because they confine the air around us while we are asleep.

Shortening-in the Peach Tree.

We have, for many years, favored the shortening-in of the peach tree. There appears to be everything for it, and nothing against it except the labor. The following reasons favor the operation:

1. Preserving the tree in a handsome, compact form.
2. Limiting the space occupied, so that more trees may be planted on an acre.
3. Increasing the thriftiness af the tree and its shoots, and, as a consequence, increasing the size and flavor of the fruit, like that on young trees.
4. Thinning the fruit by the most convenient and economical process.

It is not uncommon to see old, neglected, and unpruned trees, extending their long and nearly leafless branches to a distance of ten feet on each side of the tree, the fruit being borne on the extreme ends of these poles, and being much less in quantity, smaller in size, and incomparably poorer in quality, than crops on young and much smaller trees, or on those kept in proper form by pruning. Good cultivators find thinning necessary for attaining a high flavor in their fruit; crowded crops cannot become perfect. But to go over the tree and pick off the surplus peaches, is a slow and laborious process, while by pruning, it may be accomplished in about one-tenth of the time, and at the leisure season of winter.

We have, however, discarded the mode at first recommended, of cutting back each individual one year's shoot; this is too slow and minute. The substitute adopted is to cut off and *thin back* two or three years' growth, or more if the form of the tree requires it, always cutting where another limb branches off, so as not to leave a stump. Care is taken to avoid the error, sometimes committed, of cutting all back of an equal length, like shearing a hedge, which causes a thick outside growth, excluding the light from the interior of the tree. It will be understood, that in connection with the pruning here recommended, the trees should receive good cultivation at all times, or the success will be imperfect.

We have been induced to offer these hints at the present time, in consequence of having recently seen in a work of some pretensions, an attempt to discourage the practice.

Vinery and Plant House.

MESSRS. EDITORS—I contemplate building a cheap vinery and plant house, and wish to know what kinds of vines and plants can be most successfuly cultivated in a house, as contemplated on page 368 of the Cultivator for 1855, in this latitude, about 41°. Where can the plants and vines be obtained? Do I need the house the first year after planting out the vines, and can the peach be cultivated in that way to advantage? Can it be dwarfed to advantage? If so, on what and how, and at what season would it ripen fruit? DAVID J. BEARDSLEY. *Freedom.*

The kinds of vines likely to suit you, are Black Hamburgh, Chasselas Fontainbleau, Malvasia, Grizzly Frontignan, and Black Prince. If for market only, take the two first.

All ordinary green-house plants can be successfully cultivated in those houses, irrespective of latitude, providing the proper temperature is maintained by means of fire heat. One thing, however, the plant-house would be all the better with shutters over a part of the glass at night, especially if at all exposed to cold winds; the extra expense being more than compensated, by saving of fuel and the well-being of the plants. For buying the plants, you had better depend on the green-houses nearest you, except it may be choice or new kinds, for the sake of the carriage. Any respectable nurseryman will supply you the vines. It is out of the province of this paper to recommend particular firms.

The foreign grape *does not do well* in the open air in this country, hence you will require the house from the first planting of the vines. The building should in all cases precede the planting.

The peach does not require dwarfing in the true acceptation of the word, being trained from a maiden plant, on wires under the glass, or on the back wall, as you would the grape vine. The size the tree grows to being regulated to the space it is designed to occupy, by disbudding principally, and by pruning. The peach is successfully cultivated under glass, in this country, although the perfection at which they arrive in the open air, will ever prevent them occupying any important position, other than as the hobby of private families of means. The season at which it would ripen its fruit without any fire heat, would be from four to six weeks earlier than out of doors—earlier if started in the spring by fire heat. E. S.

Large Holes for Young Trees.

Large holes are often recommended for planting young trees—is there any way to get at these advantages without the cost and labor of digging them by hand? A READER.

A great deal of labor now performed by hand may be accomplished by the strength of horses, and digging large holes for trees among the rest. We suppose our correspondent wishes to set out *many* trees, as the labor of digging but a few holes, would be small. Large holes, properly filled, will give young trees a powerful impetus, which they will preserve for several years, till the more remote portions of the ground may be subsoiled, manured, and prepared for the further extension of the roots of the trees, after they reach the boundary of the holes. The following mode of doing the work by horse-labor may be advantageously adopted for large orchards:

After the land is prepared as for common farm crops, by such manuring as may be afforded conveniently, and by as deep a plowing as a single team will give with a common plow, proceed to measure off the distances of each row, and mark the places by stakes. Then begin by plowing a small "*land*" about six feet wide, so as to leave the dead furrow where each row of trees is to stand. Repeat the plowing on the same piece of ground several times, until the earth is thrown out down into the subsoil to a depth of about two feet. Then mark the places, by stakes, where each row *crosses* these at right angles, or in other words where each tree is to be placed. Deposit near each crossing, half a cubic yard of compost or old manure, throwing a portion of it about the place where the tree is to stand. Then proceed to plow the earth back again, one man being employed at the same time to pass along the row and to scatter the compost gradually and successively over a space of six by eight feet about the place for each tree, while the plowing is going on. In this way, a bed of rich, deep, mellow earth, formed of thoroughly intermixed soil and compost, over a space six feet by eight, is made at the place for every tree. An excavation large enough for the reception of the roots, is quickly made in this mellow bed of soil, and the tree planted by placing the unmanured and adjacent top soil next the roots. This mode of planting will be decidedly better than in holes dug by hand, for these strips of land being plowed down the natural slope of the land, as they always should be, form a channel in the subsoil through which any surplus water, (which would otherwise stagnate in the dug hole,) may easily sink away, and not remain about the roots to injure the growth, as all stagnant water does in a most serious degree. This is especially the case with holes dug in hard clay subsoils, which hold water like a tub.

Roots Cannot Grow without Leaves.

It is a well-known and well-settled principle in vegetable physiology, that no part of a plant can grow, without the assistance derived from the leaf, which decomposes and re-arranges the crude materials of the food of plants, and thus forms new wood.

For this reason, a very simple and easy way to kill a patch of Canada thistles or any other weed whose roots spread wide and extend deeply into the soil, is by keeping the tops cut off or the leaves smothered, so that no food can be furnished to the roots below. A few months of starvation in summer will destroy the plants.

For the same reason, clover or any other plants, will extend the growth of their roots more rapidly and freely if a larger top is permitted above ground than if closely pastured.

The following statement, not wholly new, from a source that we cannot at this moment give, is a further corroboration. The "curious circumstance" mentioned, exists the same with any other plant, as with clover:

Agricultural Experiment.—A curious circumstance connected with the growth of clover is, that by cutting the clover twice and removing all the hay, a much better wheat crop is obtained than by feeding it off by sheep, even if some artificial food is used. This is owing to the fact that the growth of the roots of clover in the land is in exact proportion to the growth of the leaves in the air. Each leaflet that shoots upward sends a radicle or root downward. *If the leaflet be bitten off or destroyed, its radicle ceases to grow.* It therefore follows that grazing clover by sheep materially diminishes the amount of vegetable matter accumulated in the soil by the roots, and consequently the produce of the succeeding crop.

The above is sustained by the following:

"A friend of mine in Northamptonshire had a field of clover; it was divided into two portions; both were cut at midsummer, and one part was then fed off with sheep, and the other left to grow till September, when it was again cut and the hay removed. Equal portions of the several pieces were then compared. Where the clover had been cut once and fed off, he got 35 cwt. of clover roots per acre. Where he cut twice, he got 75 cwt.; there being a difference of two tons of vegetable matter per acre.

Crop of Potatoes, by J. S. W.

One and one fourth acres. Land stocked with timothy and clover; mowed one year, and then winter killed. Planted April 25—27, with Early June potatoes—part large and part small; mostly the latter. Planted in drills 3 feet apart, manured in the drills, and covered with small plow. Plowed and hoed three times, and top-dressed twice with ashes and gypsum, sifted carefully on the tops when wet.

Yield, 270 bushels, or 216 bushels per acre.

The difference in results from large and small seed, was manifest. Two rows, planted with large seed uncut, gave 12 bushels, 10½ of which were of good size. Two rows adjoining, planted with small seed, gave 8 bushels, 6 of which were of good size. By small seed is meant not *very* small, but such as farmers are much in the habit of planting. *New Britain, Conn.*

Improved Crops of Potatoes.

Messrs. Editors—A few years ago Mr. E. C. Roberts, of Michigan, sold certain directions to secure improved crops of potatoes, both in his own state and elswhere, charging as much for each copy of them as you charge for all the information, facts, advice and discoveries which you crowd into two volumes or years of your monthly journal. Notwithstanding the unusual and somewhat objectionable mode adopted in contributing his mite to the great treasury or common stock of useful knowledge, it was very generally acknowledged by those who had paid their dollar to Mr. R. or some of his agents, that the information was well worth all that it had cost them. We have heard such testimony from the lips of several, and have heard of satisfactory results from following Mr. R.'s directions in several cases beyond our own sphere of acquaintance. It gave us sincere pleasure to learn that an improvement in potato culture had been *really* discovered, as also that our neighbors who had paid pretty roundly for one small item of information, had not been imposed upon; but we had some thoughts which we leave you and your readers to *guess* at, when a young farmer always rather scant of cash, and who had never spent a dollar in his life upon any of the productions of the press, agricultural books and papers being more especially unworthy of his attention—we had certain queer thoughts, we say, when this young man told us that he was well satisfied with the information he had got for his dollar, as he thought his crop of potatoes better by a good many times that sum.

But we took pen in hand, not to run on at this rate, nor to inform the readers of, or rather, subscribers to *The Cultivator* of last year, that they got these directions for the sixth-hundredth part of a dollar, as they occupied but a single column or about the eight-hundredth part of the volume for 1855, which cost them only fifty cents. To inform your readers of this fact, important though it be as throwing light upon the comparative cost of different ways of obtaining knowledge, was not so much our purpose, as to state that evidences of the utility of Mr. Roberts' mode of management have been increasing every year since his "*secret*" was made known. The general testimony of those who have tried this method is, that it produces crops of potatoes unusually free from disease, and of a superior quality for culinary purposes.

Among the many testimonials of this kind which might be gathered from individuals, and from agricultural clubs or societies, there is one which has found its way into the Patent Office Report for 1854, and may be found on page 164. Without any mention of Mr. Roberts' name or any allusion to him whatever, a citizen of Michigan has given Mr. Roberts' theory and directions almost in his own words, and vouched for the method, if continued a few years, causing the rot to disappear, and the crop to increase from 25 to 100 per cent. This *indirect* testimony is of value; but it is surprising that any one should so bare-facedly claim Mr. R.'s discovery as his own!!

Those who wish to know what Mr. Roberts' method is, will find the article we have referred to in *Cultivator* of May, 1855, or in the *Country Gentleman* of April 12, 1855. A Michigan Farmer.

Remedy for Hoove in Cattle.

Some two months since my cow got into the barn and eat too freely of apples, causing her to *swell terribly*, so much so as to endanger her life. Having heard it said that *nux vomica* was a specific, I dissolved about half a tea-spoonful of the globules in about a pint of rain water, and poured it down her throat. The relief was literally instantaneous, and in a few minutes she was apparently as well as ever. D. W. *Auburn.*

Gas Tar and Blue Vitriol for Preserving Wood.

Messrs. Tucker & Son—I noticed in your journal of Jan. 10, an inquiry in relation to the properties of "coal tar," as a preservative of wood, fences, posts, &c. Although my experience in the use of this article has been quite limited, yet from what I have seen of its use, I am prepared to say that it will add very materially to the durability of wood when properly applied.

I have in the grounds around my house, quite a number of frames or racks for roses, vines and shrubbery, mostly made of pine. These, before I used this bituminous tar, were continually rotting, creating considerable trouble and expense in keeping them up. I resolved at length to try the efficacy of this tar. I got some new frames made, and with a brush I gave the lower ends of the frames three good heavy coats, extending up the posts some eight or ten inches above where the ground would touch them. When they were quite dry, I put them in their respective places, and there they now stand firmly, and as far as I can discover are sound, and wholly unaffected by the weather. A sufficient time has now elapsed to satisfy me of the utility of this paint, and of its protective properties upon wood.

I have also used this tar upon the wooden gutters of my house, and upon the iron railing or fence that encloses my grounds, and although my fence is of wrought iron, the most difficult to protect against the action of the weather, yet I have found it to answer every purpose in the way of protection, and I am now satisfied that it is equal if not superior to the ordinary oil paint. It leaves when dry, (which only requires but a few hours,) a beautiful gloss equal to the best copal varnish. Its cheapness is another reason why it should be more used. I do not know what it can be had for in the east, but in our city we can purchase it at from $2 to $3 dollars per barrel. Our houses are lighted with gas made from the coal of our hills, which is inexhaustible, and known as Bituminous Coal. The tar made from the Cannel or Anthracite coal of the east, may possibly differ in some respects from ours, but should think the difference very little if any, both possessing the same general properties.

While on this subject, permit me to relate to your readers a few facts connected with the preservation of wood by copper, that came under my observation in the spring and summer of 1851. Several railroads at that time were about to make their termini in the city of Wheeling, and it became necessary on the part of the city to provide them with suitable depots; and as an old grave-yard occupied a site thought to be the most eligible for the Hempfield depot, our City Council by ordinance set it apart for this purpose. This old cemetry contained the remains of about four thousand human beings. These remains of course had to be removed to other grounds, and it so happened that it was made my duty to superintend their removal. In the prosecution of this work, one fact was disclosed, which, if not known before, I beg to give publicity through the columns of your paper. It was very common, some 40 or 50 years ago, to ornament the coffins of the dead with a row or two of brass nails upon the edge, and the initial of the deceased upon the lid of the coffin—also upon the ends to fix brass handles not unlike in shape and size the old fashioned handles of trunks. By these handles the dead were conveyed to their final resting place. Wherever these nails or handles were used upon the coffins, the wood in contact with them was in a perfect state of preservation, as hard and firm nearly as when the coffins were first made. In some graves, where the interments were of many years standing, the coffins as well as the bones were nearly or entirely gone—not even the black dust of the decomposed bodies or coffins were left, all having been washed away by the rains of many years, percolating through the coarse gravelly soil of this old cemetry. The only relics left in some cases, were the teeth and small portions of the hard bones, and those specimens of preserved wood with the nails and handles adhering. These samples of brass and wood, I still have in my possession for the inspection of the scientific and curious. No doubt, therefore, is left on my mind, that copper, for this is the principal ingredient in brass, possesses properties that render wood almost indestructible. Other metals have been used for this purpose, but on account of their cost have been laid aside. This objection cannot be urged against this metal. The sulphate of copper, the common blue vitriol of our shops, can be had in the eastern cities for a few cents a pound. A vat or cistern could easily, and at a very small expense, be constructed, in which a suitable quantity of the salt could be dissolved in water, into which the timber or posts could be placed, and then suffered to remain until they were sufficiently saturated, when they could be removed, and give place for more. The strength of this fluid would of course have to be ascertained by experiment, which could easily be done.

In this matter, I have simply stated what came under my observation. The facts disclosed, I think are sufficient to induce a further investigation of this subject. That copper does possess some elements in its composition, while in an oxidizing or corroding state, that will preserve wood, is to me most clearly apparent. These brass nails and handles were quite green upon their surface, gradually undergoing such change as would render them soluble in the moisture of the earth, and in that way would readily be absorbed by the wood in contact. A. S. Todd. *Wheeling, Va.*

In the *Country Gentleman*, vol. 3, p. 311, we published the following statement, which was properly vouched for to us, by a gentleman familiar with the facts stated. We should be glad to know if any of our readers have tried the experiment here recommended:

A gentleman residing in Windsor, Vt., has introduced into that region a method of fencing, which for cheapness or durability and efficiency, can hardly be surpassed. He procures stakes of a suitable wood, five feet in length, and steeps the lower portion of them in blue vitrol—one pound of vitrol to forty of water. This renders them almost indestructible by the natural process of decay. He then drives the stakes into the ground at a distance of eight inches apart, bringing the tops into a straight line, and nailing upon them a narrow strip of board, using one nail for each stake. It is said that cattle and sheep can't get through it, horses will not jump it, hogs will go a good distance round rather than climb over it, and a lazy man can't sit in the shade of it.

Land Reclaimed by Drainage.

Messrs. Editors—I have a small place of thirty-five acres, which I have owned six years. Before I bought, it was said to have been very badly managed, and I have no reason to doubt it, as that part which had been cultivated was well worn down by shallow plowing, constant cropping, with little or no manure, and the balance being densely covered with a growth of brush and briers, with a large quantity of spring and stagnant water, which forbid its being cultivated until it was thoroughly underdrained. It was also blessed with a prolific crop of stone, so great that many thought I never should be able to exhaust them; but I have entirely cleared them by digging and blasting, and converting them to stone fences, with a larger portion to underdraining. Now that part which was entirely worthless, has become the most valuable and productive land I have, yielding at least three tons of hay per acre. A. Hawkins. *Westchester.*

River Mud as a Fertilizer.

To the Editors of the Country Gentleman—I noticed in your paper an inquiry by N. Dustin, about the value of mud as a fertilizer. I reside on one of the numerous creeks that empty their waters into the river Delaware, and having large deposits of mud on the farm, I have been experimenting with it for several years, and have satisfied myself it is valuable as a manure or fertilizer. A part of the soil upon which I have used it is sandy, the balance is a light loam. I have used it composted with barn-yard manure, horse dung and lime, and as a top-dressing with lime for grass lands. I believe its value depends much upon its preparation and application, and that it should be thrown out and exposed to the action of the frosts and air, by which it will become thoroughly pulverized, and in all cases should be mixed or spread with lime.

In composting it I haul out the barn-yard manure and dump it in a heap so as to drive on it and dump the mud on top, and on top of it again I put a coat of lime. I think it is not necessary to put much lime with it when used in this way—only sufficient to correct acidity. Previous to using it I generally turn the heaps once or twice.

In top-dressing with it, I haul the mud out on the field and dump it, a load in a place, about two rods apart each way, in time to let the frost operate on it, and either put the lime on the loads or spread it broadcast. After the mud has been pulverized by the frosts, and about the time the grass starts in the spring, spread it from the heaps.

I have one field of about six acres, treated in this way, which has produced a very heavy crop this season. I have not the account at hand, but will send it you with a statement of the manner of cultivation at some future day.

On the opposite side of the creek, is a farm of drifting sand, a portion of which, about fifty years ago, received a heavy coat of this mud from the banks of the creek, and at this time stakes are entirely unnecessary to indicate its exact boundary, so distinctly is the effect visible.

From my own experience, and the information I could get from others who have experimented with it, I am satisfied that the benefits resulting from the use of it are immediate and permanent; but in regard to the extent of its value, I am still undecided, but think at no distant day it will be classed among our most valuable fertilizers. J. M. Troth. *Camden Co., N. J.*

P. S. I do not know what effect it would have on heavy clay lands, but believe it would be beneficial even on them.

Manures for Peach Trees.

Messrs. Editors—I would ask the following information through the Cultivator: Which would be the best fertilizer for growing a Peach Orchard at its commencement of bearing, guano, bone dust, ground bones, poudrette, or phosphate of lime, the soil being limed fifty bushels per acre? Also the best fertilizer for growing a peach nursery? Geo. H. Larison. *Sargentsville, N. J.*

Bone dust or ground bones, and phosphate of lime, being nearly the same thing, and forming what is strictly termed a *special* manure, require *actual trial*, to determine their efficacy, in the several districts of country where their use is proposed. They *might* be found of value to peach trees, but more probably they would be of little use. Guano, being a compound manure, or more nearly resembling in its character common stable manure, gives much better promise of success; and poudrette, if good, still more so. The latter, of course, is to be applied in much larger quantity than the guano, which is highly concentrated.

Charcoal as a Fertilizer.

For two years past I have used some fifty loads each season of refuse charcoal, and being fully convinced that it pays, I wish to recommend it to my brother farmers. I have tried it on grass, corn and potatoes—have tried it alone, and in the compost heap, and in all situations it has proved faithful to its trust. As a top dressing for grass, it gives a green color and luxuriant growth. Applied to half an acre of early potatoes the last summer, the yield was 75 bushels of as fine healthy potatoes as could be desired, that sold readily for one dollar per bushel, and yielded the best profit of any thing raised on the farm.

The virtue of charcoal mainly consists in its absorbing power. The purity of the air around a charcoal pit has long been known, and the colliers, notwithstanding their smutty appearance, are robust men. The secret of this purity of the air and the health of the colliers, lies in the fact that charcoal absorbs from the air the ammonia and other noxious gasses, unsuited for our lungs, but just the food for plants. Every good housekeeper knows that if her boiling meat gives forth an unsavory odor, a piece of fresh charcoal put into the pot will not only sweeten the air, but will remedy the taint of the meat. In the same manner it acts when applied to the land. It absorbs from the air those gasses offensive to our nostrils, but the main food of plants. And this it will do, not once only, or for one season, but very possibly for a century. Where an old coal-pit has been burnt, the land never seems to wear out, and the first settlers point to the coal bottoms that are fifty years old, still by their exuberant vegetation marking well the spot where the wood was converted into coal. A fertilizer so lasting is well worth some expense at the outset. But where can we get it, some may ask. If any charcoal pits are burned in your vicinity, the bottoms will furnish three or four loads each of refuse charcoal, mingled with burnt soil. The latter is highly valued also as an absorbent. Around furnaces and blacksmith shops, the waste charcoal also accumulates, and in many instances may be had for the carting. It may be found also around engine houses, thrown out from locomotives. If none of these resources are at hand, then use the best substitute possible, which is muck, or swamp mud, and double the manure heap by composting, and if the crops are not doubled, then my experience is vain. Berkshire.

Training Colts.

Messrs. Editors—I noticed in a late No. of the Country Gentleman, the "advice and practice" of Mr. James O. Miller, Jr., of Montgomery, N. Y., in training colts. I think with him, that a colt ought to be rendered as docile as possible at an early age, but I do not agree with him as to the best time and manner of effecting this object. I am of the opinion, that the best time to commence "halter-breaking a colt," is as soon as it is fairly on its legs; and by the time it is a week or fortnight old it should be thoroughly "halter-broke." It can be effected with little time and little strength, and without the aid of "a good whip." I think it unwise ever to tie a colt "to a tree or post, with his heels near a small pond or brook," and *frighten* him "with a splash in the water," when his halter gives way; and I also think it unwise to tie him to a post, or any other thing, which will not give, "and let him pull himself down." There is great risk in this operation, the colt may break its neck, or, otherwise, seriously injure himself, and the risk would not be diminished by "flogging him roundly till he gets up, and repeat until cured." Mr. Miller's method of "training colts" seems to suit him, but it finds no favor with me. A Farmer. *Oswego.*

Feeding Sheep on Daisies.

Messrs. Editors—A well written communication from H. J. Canfield, on the cultivation, usefulness, and destruction of daisies, in your last vol., p. 157, is so at variance with what my experience has taught me, of this most pernicious of plants that the farmer has to contend with, that I cannot refrain from writing a few words, though it is the first time in my life I ever attempted to write for an agricultural journal. He says: "There is no herb which can be placed before sheep, of which they are more fond than of the daisy. Their great regard for this plant can be made use of as a means of destroying them." That "no herb can be placed before sheep which they are more fond of," is certainly news to me, and if true certainly worth knowing.

I will travel all the way to Cape Cod, to see a sheep so much of a fool as to leave good timothy, red or white clover, or any other good grasses, to eat daisies. I should entertain very different feelings towards such sheep, from those expressed by the late John Randolph towards sheep in general. That a sheep will live on daisies, I very well know, from seeing it thoroughly tried by a neighbor, to his loss of at least a thousand dollars. And so will they live on catnip, Mayweed, tansy, wormwood, or pennyroyal. But that a sheep can be made to grow one pound from spring to fall, on either, is what I cannot believe; and Mr. Canfield had better direct his communications to the marines, instead of farmers. I have no doubt he is a much better sailor than farmer.

Now, if Mr. C., or any other "Cape Cod farmer who considers daisy-hay worth 33 per cent. more than the best of timothy and clover hay," will take the trouble to weigh one hundred sheep, and put them on daisy pasture where there is nothing else—if good fat sheep in the spring—and weigh them again in the fall, he will find they have lost from ten to fifteen pounds each—whereas such sheep, put in good pasture, will increase from fifteen to twenty pounds each, making a difference of at least thirty pounds, which is all meat and tallow, and at present prices is worth at least five cents a pound, which would make a difference of $1.50 per head.

I know how to make sheep destroy briers and common brush on a farm. By throwing salt on them when there is a heavy dew, or the leaves are wet with rain, the sheep will destroy them though there is good feed in the field. And I know how to make sheep weed a potato field, without eating the tops—that is, fine-wooled sheep. Put them in the field after the dew falls, and take them out before it is off in the morning, and they will eat the grass, and the weeds excepting daisies, and leave the tops, and will eat them if starved to it.

My neighbor of whom I spoke, tried killing daisies with sheep to his heart's content, by putting a flock on sixteen acres, and keeping them there until they were nearly starved, though plenty of daisies in the field, and then changed them and put others on, and those that had been on the daisy field, in good pasture, and so kept changing every week thereafter, keeping 500 head on the daisy pasture all summer, so that he lost the entire growth of a thousand sheep, which went into the winter weak and poor, and had to be nursed all winter. Instead of being fat, strong, and ready to stand the severe winter, they were just fit to be blown away by a north-wester. It is true he killed the most of the daisies on sixteen acres of land, at an expense of more than $1000, to say nothing of the inhuman cruelty of starving poor dumb brutes, where there were daisies in great abundance; and the only excuse or apology I ever heard him make for his great loss and cruelty, was that he was young and inexperienced, and it was recommended by a man pretending to know how to kill daisies. He could not be caught so again, as he is a man now that thinks for himself.

Mr. C. says: "They may be raised in Eastern Maryland or Virginia for sheep pasture, where ordinary grasses cannot be produced." I never go to Eastern Maryland or Virginia in a dry season, when their grass is dried up, and see their cattle and sheep feeding on daisies, and hear their bleating and lowing in the field, but what I think of my neighbor's poor starved sheep, and their cattle look like the breed they had in old times, that they could salt in their horns.

I think I know how to kill daisies, though it requires work by plowing them up and planting to corn—cultivate and hoe, not leaving one to tell the tale. Summer fallow the next season by plowing and cultivating every week through the season. After the wheat or rye comes off, plow and cultivate until the frost prevents. Plant again in the spring, to corn or potatoes—cultivate and hoe every week, and the daisies will be effectually disposed of, and your ground in good condition to seed down with a spring crop, if good rich land, and if not make it so by putting on manure if you have it—if not, sow two crops of buckwheat a year, and plow them in before there is any seed on the daisies. Continue that for three years, and you will have not only disposed of your daisies, but have rich land that will grow something that sheep will like better than daisies. And if you live where buckwheat will not grow, nor anything else to renovate your land, if you desire to live by farming, leave it, and go where you can raise something for man and beast to feed on, that is not more bitter than lager beer. A Poor Old Farmer.

Soaking Seeds in Tobacco Water, &c.

Messrs. Editors—I noticed the inquiry of C. G. in a late No., in regard to soaking seeds in tobacco water as a preventive of the depredations of the cut worm, &c. About three years ago I gave the tobacco water cure a fair trial on corn. The seed for part of a field, afterwards reported in *The Cultivator*, was soaked from six to twenty-four hours in a *strong* decoction of tobacco, without at all injuring its vitality, or in the least interfering with the operations of the cut worm. It was planted on sod ground, plowed late the fall before planting, but spite of fall plowing and tobacco, the worms made sad hovoc. By the side of it was planted corn in its natural state, but no difference could be seen. After the corn had been in the ground two days, in which time there had been some rain, I dug up some of it, and no *taste* of tobacco could be perceived in the kernels, whereas when planted they would have answered an old chewer's purpose nearly as well as the weed itself.

"Observer" has some very just remarks in regard to the quality of hay the past summer, and indicates our duty in view of the fact, for fact it is. He says in many cases it has "caused slavering in both horses, oxen and cows." "The *cause* is thought by some to be the flashiness of the grass when cut for hay, in consequence of the excessive rains of last spring and summer." Now if this be the true *cause*, we are ever liable, nay almost certain to have a frequent recurrence of the evil. But this appears to me not to be the cause, else we should all have slavering horses and herds, for the *effect* must be co-extensive with the *cause*. It is well known that horses running in a pasture where there is plenty of *lobelia*, or Indian tobacco as sometimes called, will slaver profusely. Will it not have the same effect when cut and cured with the hay if it is in any considerable quantity? Is it not attributable to the presence of some herb in the hay, that stimulates the glands to the secretion of an undue quantity of saliva? Vermonter.

Preparing Soil for Gardens.

There are several reasons why the soils of gardens should be made better than for ordinary farm crops. 1. Most of the products of gardens are of a succulent nature, or will otherwise bear high feeding, such as garden *roots* in general, plants whose *leaves* furnish food, as lettuce, cabbages, &c., or those which produce large and succulent fruits, as cucumbers, melons, squashes, &c. 2. As nearly all garden crops are the immediate food of man, while many farm crops are only the coarser food of animals, greater care and skill may properly be applied in bringing the former forward to a high degree of perfection. 3. The great amount of family supplies which may be obtained from a half-acre garden, provided the best soil is prepared for their growth, renders it a matter of equal importance and economy, to give the soil the very best preparation.

It rarely happens that there is much selection to be made in soils as we find them in nature, for gardening purposes, unless particular attention is given to the subject in choosing a site for a new dwelling. Generally, we have to take the land as we find it. Unless, therefore, we happen to find it just right, we should endeavor to improve it in the best manner. The principal means for making a perfect garden soil, are *draining*, *trenching* and *manuring*.

Now, lest any one should be startled at the outset, with the *fear of cost*, in thus preparing the soil, we may remark that the entire expense of preparing half an acre, (which would constitute a large kitchen garden,) would not in general, amount to more than the amount saved in a single year in the purchase of food for family supplies, by the fine and abundant vegetables afforded. If the owner cannot possibly prepare his half or quarter acre of land properly, then we would earnestly request him to occupy the ground with something else than garden crops, and to take only a single square rod, (if he cannot attend to more,) and give this the most perfect preparation. A square rod of rich, luxuriant vegetables, will be found more valuable than eighty rods or half an acre of scant, dwarfed, and stringy growth, which no one will wish to eat; while the extra cost and labor spent on the eighty rods in seeds, digging and hoeing, would have been more than sufficient to prepare the smaller plot in the most complete manner.

Let the determination be made, therefore, at the commencement, to take no more land than can be properly prepared, and in the most *thorough manner*.

1. *Draining*. A few soils do not require draining, but with most it will be indispensable. Where the subsoil is gravelly or porous, so that any amount of extra surface water will be immediately discharged below, the operation is not needed; but in all cases where, in digging a hole two feet deep, the water is found to stand in its bottom during the wetest times, we may be sure that draining will be of great importance, in preventing a cold, sour subsoil, and stagnant water beneath its surface. Such a condition of the soil could not fail to prove exceedingly detrimental to good growth, and drains not more than thirty feet apart should be made as the first indispensable requisite. No one who has never given draining a full and fair trial, can appreciate its importance. It often happens that the soil may be worked and planted from two to four weeks earlier in spring—a most important advantage for *early* vegetables, where a few days of accelerated maturity are so highly valued. Scarcely less, is the benefit during the rest of the season, in preventing a hard and baked soil in times of drouth.

2. *Trenching*. A surface soil of a few inches only, will not answer for a good garden. The roots of succulent vegetables must extend into a deeper bed of fertility; and a greater depth of pulverization is required to absorb surplus rains, and to give off the accumulated moisture in dry weather. A shallow soil will become deluged by a single shower, because the hard subsoil will not allow it to pass downward; and again, in the heat and drouth of midsummer, a thin stratum is made dry and parched in a week, while one of greater depth becomes scarcely affected. We might cite numerous instances, where trenched gardens remained in the finest state of luxuriance during the most severe drouths, when others under ordinary management were nearly burnt up with the heat, growth having quite ceased, and leaves curled and withering for want of moisture.

The *mode* of trenching must vary with circumstances. In small circumscribed pieces of ground, necessity requires it to be done by hand, according to the well known process of throwing the earth to one side, from a ditch cut between the trenched and untrenched portions of the ground. It is not unusual to trench three feet deep for trees, but for the kitchen-garden two feet or even twenty inches, will answer an excellent purpose, and prove incomparably better than its entire omission. Disappointment sometimes results from the practice of throwing the poorer subsoil to the top; this should be avoided, or at least but a portion of the lower soil mixed with the upper, and the same time a copious amount of manure mixed through and more abundantly applied near the bottom. Compost or old manure is best; but fresh manure will answer nearly or quite as well, provided it is thoroughly broken up with an iron rake and mixed in, as the work advances.

The cost of trenching by hand may appear great, but when its future results are taken into the account, it will be found to be a remarkably paying expenditure, the gain amounting perhaps, to five hundred or a thousand per cent. for subsequent years. It may be greatly cheapened on all grounds where a team can be used, by the subsoil plow, to loosen up to a depth of one and a half to two feet. A double Michigan plow may be afterwards employed with great ease in this loosened bed of soil, to bring any desired portion to the surface, but more especially for working in through all parts a plentiful supply of manure.

The cost of preparing thus a half acre of garden ground, will be about as follows:

One coat of manure or compost, 10 loads drawn,....	$10.00
Two thorough harrowings of this manure, to break and intermix it,....................................	25
Plowing with a common plow, followed with a subsoiler and double team, ...	3.00
Another coat of manure, 20 loads, ...	20.00
Two thorough harrowings,..................................	25
The whole thrown under to a depth of 15 inches, by large Michigan plow and triple team, ...	3.00
A third coat of manure, 20 loads, ...	20.00
Two harrowings..	25
Plowing under with a common plow, about 8 inches,.	1.00
Total cost for preparing garden ground,...	$57.75

Of this expense, $50 are paid for fifty loads of manure, (for half an acre, or 100 loads per acre,) and only $7.75 for all else, after the manure is applied, the drawing of the manure being reckoned with the cost, $1 per load. The manure would cost the same, if applied in the common way, and would be much less efficient, hence the subsoiling, plowing and harrowing, are operations of great economy, if only the saving in the manure is considered.

The mode and depth of some of the plowings must be made to vary with circumstances. If the subsoil is sterile, the plowing after the subsoiling must not be so deep; and a fourth coat of manure, well harrowed, and turned under with a gang-plow, will be advisable. The precaution must be observed, however, in any modification of the preceding process, to throw down each successive coat of manure to a depth different from the others. If *fresh* manure is applied, a greater number of harrowings will be necessary to break and intermix it, an operation of the greatest importance, and increasing *several times* the efficiency of the manure, according to careful experiments.

The present time of year will be found suitable for preparing for some of these operations. Sometimes hand-trenching may be done to great advantage towards the close of winter, when the subsoil is softened with moisture and digs easily; and manure may be collected and sometimes composted. If the composts are prepared a year, or at least several months ahead, all the better.

The French Prune.

MESSRS. EDITORS—The scions of two varieties of Prunes were imported from France last spring, through the agency of the Patent Office. The scions, a dozen or more in a package, were put in tin canisters, and largely distributed, principally in the states north of Pennsylvania, and certain districts bordering on the range of the Alleghany mountains, in order to be engrafted upon the common plum. These regions were selected in consequence of their being freer from the ravages of the curculio, which is so destructive to the fruit of the plum tree in other parts, as often to cut off the entire crop. It has been estimated that the state of Maine, alone, where this insect is rarely seen, is capable of raising dried prunes sufficient to suppy the wants of the whole Union.

The *Prune d'Agen*, which is considered the best for drying, is of good size, of a violet color, with deep yellow flesh, of a delicious flavor. This variety succeeds best when engrafted upon a wild stock, or when it springs up directly from the root.

The *Prune Sainte Catharine*, in the climate near Paris, is also esteemed as excellent for drying. It likewise furnishes to commerce the well-known "Pruneaux de Tours." The tree is of medium size, about twenty-five feet high, and grows well both as a pyramid and as a standard. The branches are long, slender, and but little ramified, their shape being rather slight. Throughout their whole length there grows a large number of buds, so near to each other that on a branch a yard long, there are produced from fifty to sixty plums. Hence it is easy to conceive the excessive abundance of the crop of a tree thus laden with fruit, the productiveness of which is not equalled by any other kind. This plum is of medium size, obovate or nearly round. The skin is fine, pale yellow, sometimes tinted with red on the sunny side, and lightly covered with a white transparent bloom. The flesh is yellowish, sometimes firm and adhering to the stone, *very* juicy, sweet, and agreeably flavored. It ripens in the neighborhood of Paris, in September and October. This plum, beyond its *unrivalled merits* for preserving in a dried state, has the advantage of being an excellent dessert fruit, when fully mature.

In very warm and dry climates, prunes are prepared by drying on hurdles by solar heat alone; but in France they place the plums upon round wicker baskets, about two feet in diameter and two inches deep, putting into an oven sufficiently warm to cause the fruit to wrinkle after an exposure of twelve hours. There are some further processes to which they are subjected before they are ready for the market—these can be found minutely described in the last Patent Office Agricultural Report, at the 30th and 31st pages.

If the plums can be raised here, we can see no reason why they could not be dried as easily and safely as peaches are; they are not so juicy, or so liable to rot as the peach. Grow them here, and we think Yankee ingenuity would soon discover the means of drying them in the utmost perfection, and with less labor than is required in France—as described in the Patent Office Report.

About the 12th of June, I received a canister of Prune scions from the Office; they were in bad condition; most of them, wood and bark, were turned brown I distributed a portion among my neighbors, and had a number set in the Canada and other plumstocks. Only two of mine grew. One of them grew during the season, about five feet, making numerous long, slender, horizontal branches, (this I presume is the St. Catharine;) the leaves held on much later than those on several other kinds of plum trees near them. The wood of the prune scions appeared to be fully ripened, and doubtless will withstand the cold of our winters.

The greatest enemy we have to fear, in our attempts to cultivate them, is the curculio. From some cause, not easily understood, there was scarcely any damage done the past season to the plum crop in this section of the country by the curculio—(and the same may be said in regard to the apple.) Last season plums did not ripen as well as usual, but still they were so abundant, a large portion of them could not be sold at any price. The curculio may not return again for years, perhaps; and plums and other smooth skinned fruits may be cultivated with as much certainty as they were *here*, fifty years ago, and then they were as sure, nearly, as "seed-time and harvest."

With our endless variety of soil, location, climate, and varied population, we think the attempt to grow the French prune should be fairly and carefully tested. It is hardly creditable to us as a nation, to expend such sums of money as we annually do, for imported dried prunes, when in all probability, there might easily be grown in the "state of Maine, alone, sufficient to supply the wants of the whole Union," even if those *wants* were ten times greater than at present.

During the fiscal year ending June 30th, 1855, there was imported into the United States, 759,797 pounds of dried prunes—in value, (at the Custom House appraisal,) amounting to $64,568.

Patriotism and self-interest, should prompt the American farmers and fruit growers, "to start an opposition line," in the culture of prunes for drying. If successful, it would be well for their own and our country's best interest—if unsuccessful they would have the satisfaction of knowing they failed in an honorable competition.

The prunes when properly dried, are assorted by sizes, and packed in boxes, baskets, or jars, for sale, or for use. Some of them are put up in very prettily prepared boxes with glass covers, &c. I noticed a sale of 160 cases fancy boxes Bordeaux Prunes, in New York, not long since. They ranged in price, according to quality, from sixteen to thirty-eight cents—per pound I presume. L. BARTLETT. *Warner, N. H.*

Answer to Inquiries about Manures.

Messrs. Editors—In sending the accompanying list of subscribers, I wish to ask some information that I think would be valuable to many of the readers of your papers.

The most common manures in use are barn-yard, guano, superphosphate of lime, bone dust, gypsum or plaster of Paris, wood ashes and lime. We should like to know which of these might be used together advantageously; and which should not be used together, as they would destroy the effect of each other. Also on what land and what crops you deem each most beneficial. Edward Merritt. *Pawling, N. Y.*

Unleached wood ashes or lime should never on any account be mixed with guano, bone dust, or superphosphate of lime. Both the ashes (potash, soda, &c.,) and the lime will set free the ammonia from its acid combinations, and, as it is a volatile substance, it flies off into the atmosphere and is lost. As ammonia is the most expensive of all manuring substances—costing in any concentrated and available form, at least twelve cents per lb.—it will readily be seen that nothing could be more detrimental to these manures, than to mix ashes or lime with them.

Ashes and lime mixed with superphosphate of lime, not only drive off the ammonia, but convert the soluble superphosphate into the insoluble phosphate of lime, thus neutralizing the effect of the sulphuric acid used in the manufacture of superphosphate. The effect of this change may be judged from the fact that superphosphate of lime cannot be bought for less than eight cents per lb., while phosphate of lime is worth only one cent per lb. This is taking the English price of superphosphate manures, ($30 per ton.) In this country, soluble superphosphate of lime costs very much more than eight cents. Nothing can be worse, therefore, than to mix ashes and lime with superphosphate of lime, or with Peruvian guano.

We can conceive cases where ashes and lime might be used to accelerate the decomposition of barn-yard manure or composts, without much loss; but great care and judgment would be required, or there would certainly be a loss of ammonia. As a general thing, however, there is more need of retarding than accelerating fermentation in a manure heap. Rapid fermentation invariably results in a loss of ammonia; and on this account, if on no other, ashes and lime should not be mixed with barn-yard manure. If the manure is already decomposed to a considerable extent, and salts of ammonia are formed, the addition of ashes or lime would immediately decompose these salts, and a loss of ammonia would be the consequence.

Pure gypsum (sulphate of lime,) will do neither good nor harm if mixed with Peruvian guano, bonedust or superphosphate of lime. That is to say, gypsum and guano mixed together, would be neither better nor worse than the same amount of gypsum and guano sown separately. So of superphosphate, &c. We make this assertion with perfect confidence. We are well aware that there are some chemists who recommend the admixture of plaster with guano, in order to convert the volatile carbonate of ammonia of the guano into the fixed sulphate, and thus prevent the ammonia from escaping. If plaster would do this, the recommendation would be valuable, but it will not. Furthermore, we have known samples of gypsum which actually set free ammonia when mixed with Peruvian guano and moistened with water. This result is probably to be ascribed to the gypsum containing a portion of lime not neutralized by sulphuric acid.

Gypsum might be advantageously used in the manure heap to "fix" ammonia, if it could be applied in solution. Where gypsum is cheap, we think it might pay to scatter it in the stables, and in situations where the urine could dissolve a portion of it. In this way it would do some good; and in no case can it do any harm. If it did not serve to retain the ammonia, it would still be as valuable as though applied alone directly to the soil.

Gypsum, unleached wood ashes, and lime, may be a more effective manure when mixed together for some time before sowing, than when sown separately. Some assert that such is the case. We doubt it. At all events, we can see no reason why it should be so. Even admitting that the ashes and plaster would decompose each other, we cannot see why the sulphate of potash and carbonate of lime should be any more effective than the sulphate of lime (plaster,) and carbonate of potash, (ashes.) It is, however, a question for the field, rather than the laboratory. What is the experience of our correspondents on this point?

"What land and what crops are these manures most beneficial to?" In the present state of agricultural chemistry, it is impossible to answer this question with any degree of confidence. The mere analysis of the crops or of the soil, will not enable us to answer it. Experiments alone afford light on this interesting subject. Unfortunately these have yet to be made in this country.

For wheat, barley, oats, and the grasses, Peruvian guano is the most effective of all artificial manures. For turnips, cabbage, lettuce, celery, &c., a good superphosphate of lime is the most powerful fertilizer known. For clover and peas, on most upland soils, gypsum is a profitable manure, where it can be purchased for less than $5 per ton. Unleached wood ashes would be likely to do more good on beans, clover, and old meadows, than on any other crops. Lime is generally more valuable for wheat than for any of the other cereals; though the best crop of barley we ever saw, was on a light, sandy soil, that had been limed the preceding fall at the rate of 200 bushels per acre. Barn-yard manure is good on all soils and for all crops; and we hazard the assertion that the time will never come when it can be dispensed with.

We make these hasty remarks for the purpose of calling out more in detail the opinions of our experienced practical correspondents. J. H.

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Devon Herd Book, Vol. III.—The American Editor of the Devon Herd Book, Sanford Howard, Esq., gives notice that he is ready to receive lists of animals to be inserted in the third volume, which is to be issued during the present year. For further particulars, address Mr. H. at the office of the Cultivator, Boston, Mass.

☞ M. L. Sweet, of Grand Rapids, Mich., has a hog whose live weight is about 1200 pounds. He measures nine feet from the end of the snout to the root of the tail, and his body is three feet deep.

The Register of Rural Affairs.

We copy the following from the *Granite Farmer* of January 5, in which it appears as a communication from the Rev. J. M. Merrick. While it is needless to say that the author is an entire stranger to us, his commendation of our little Annual forms quite a remarkable tribute to its value, and is all the more welcome from its entire impartiality:

Mr. Editor—In a late paper you noticed the "Illustrated Annual Register of Rural Affairs," very justly commeding it. You did not, however, speak more highly of it than it deserved. I have no more interest in it than any other reader, but I wish to invite the farmers to buy it. It is a cheap, and useful book—no catch-penny affair—but a really profitable work. It contains more information for the farmer, gardener and builder, than I know where to find in any book of twice the size. Its catalogue of fruit trees is worth more than the price of the book. It contains much valuable information respecting cattle, swine, cheese-making, dairy-work and agricultural pursuits generally. But perhaps its most important article treats of farm-buildings, both houses and barns, and is illustrated by many excellent engravings. And is not this a topic on which most farmers need instruction? Is it not a fact that a great deal of money is expended to make buildings inconvenient? Is it not true that many farmers, like many other men, when they propose to build a barn or house, have no very definite idea of how it will look or how it will accommodate them? Or, whether all the room is to be employed to most advantage and with the least expense? Every carpenter imagines himself capable of making a plan. Hence so many awkward, barn-like houses, and so many barns that cost so much more than they ought, and after all do not answer their intended purpose. It should be understood that it costs no more to build a good-looking house than an ugly one; and that what is spent in neat front yards, ornamental trees and handsome fences, is amply repaid in comfort and in the cultivation of good taste on the part of children.

This matter is worth looking after, especially by those who are about to build houses and barns which they intend to occupy as long as they live. When they can have things good-looking and convenient, without any extra outlay of money, it seems as if the dullest soul would prefer to hawe them so. Perhaps none of the plans given in the Register will suit the taste of a single individual; but none can study those plans without getting some useful ideas.

So with the whole book. It is full of good suggestions. When it does not convince us in regard to its specific propositions, it sets our own faculties to work, and thus does us the chief benefit that any book can furnish. It may be found in most of the bookstores, price twenty-five cents. No man can study it attentively without getting his money's worth and good interest besides.

The above is written of the Annual Register for 1856, but is equally true of its predecessor for 1855. They may be had, by enclosing to the proprietors of this paper, 50 cents in stamps or specie—or either singly, for 25 cents—in paper covers, postpaid. *Bound*—price of the two $1, postpaid, or 50 cents each.

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Preserving Milk—Place new milk in a clean pot, and evaporate it till nothing remains but a light dry powder. Put this in a bottle and seclude it carefully from the air by corking and waxing, and when milk is wanted, dissolve a small quantity in pure soft water. The solution will be found to possess the qualities, as well as the peculiar taste and *aroma* of milk freshly drawn from the cow.

Improved King Philip Corn.

Messrs. Tucker & Son—Allow me to state a few facts about corn culture. On the 11th of June 1854, I received from the Patent Office, a small bag of "Improved King Philip or Brown Corn," with directions to plant, &c. I divided with one of my neighbors, and planted the balance myself on the 13th of June, and raised about 3 pecks of ears corn. On the first day of June, 1855, I planted 56 rods of good dry loamy soil, with the above variety of corn, with the following result. In less than 88 days, my corn was cut up by the ground, and set up in small parcels around a hill of corn, bound around the top to support it, to dry. After sufficiently dried, I hauled to the barn, and husked, measured and put into the corn-house, in good order, 84 bushels of ears, which is as good as 47 bushels of shell corn. The smallness of the cob, and the uncommonly large kernel produces the above result, which is about 134 16-56ths of a bushel of corn to the acre. My land was old potato ground and had been for 3 years, having been well manured. To change the order of things, I planted to corn. I think the Improved King Philip or Brown corn, is certainly a good variety for us to raise in this locality. I have usually raised the Dutton, which is an excellent variety of corn; yet my present belief is that the King Philip will out-yield the Dutton or any other variety that I am acquainted with. Alvin Lawrence. *Mexico, Oswego Co., N. Y.*

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Underdraining with Plank.

Messrs. Eds.—A few words more on the subject of underdraining with wood. My plan for underdrains is to get black walnut boards, 6 inches wide, 1½ inches thick—miter the edge, and lay 2 or 3 feet under the surface; and those that wait to see how long it will last in clay soil, will have to wait at least 20 years; but wood will not last as long in sandy land as it will in clay. Some will say that black walnut will not last for posts. This I admit. It will not at the surface of the ground, but 2 feet below, it will outlast the best of oak timber. A. H.

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A Good Crop of Potatoes.

LARGE AND SMALL SEED.

In 1855, I planted potatoes on 44 rods of ground and dug one hundred bushels, or a fraction over three hundred and sixty bushels per acre. The soil was a clay loam, without manure. The name the potatoes are known by in this section of the country, is *Irish Grey*. I broke the ground about eight inches deep, as early in the spring as it was dry enough to stir; marked off one way with a shallow furrow, rows three feet apart, and planted in hills two and a half feet apart in the rows. There was a great call for seed potatoes, and a vast deal of talk about the relative value of large and small potatoes for seed. To test the matter, I planted six rows with the largest tubers I could select—six with fine smooth medium tubers—six with very small ones, some not larger than a hazel nut, and six with mixed. There was very little difference of yield, but quite a difference in size. The largest seed produced some of the largest potatoes, but a large proportion were medium in size, some small. The medium seed produced by far the best potatoes—smoother and more uniform in size and shape. The small seed produced some very fine potatoes, but they were generally under size. The mixed seed produced, next to the medium, the fairest potatoes. Philo. *Linton, Ind.*

Butter and Cheese Dairies.

Messrs. Editors—As New-York and Vermont Dairies have lately been represented in your columns, I must beg a small space for Massachusetts.

Perhaps you are aware that the Massachusetts Society for the Promotion of Agriculture have been offering for two or three years past, to different counties in the state, three premiums of $75, $50, and $25, for the three best dairies of six cows each, with an exact account of their produce for five months.

The year before last they were offered to Worcester county. The successful claimants for the two first premiums were W. S. Lincoln of Worcester, and William Robinson of Barro.

The average period of milking in the case of Mr. Lincoln's dairy, was 4 months and 21 days. The produce was 854½ lbs. Had it continued for the five months at this rate it would have amounted to 920 lbs. 4½ oz. The butter was sold at two shillings, (33⅓ cts.) per pound. This would give an income of a little more than fifty one dollars per cow for *five months*. I believe your Vermont correspondent's cows yield him a little less than $47 each for a period of seven months

Three of Mr. Lincoln's cows were Ayrshire, two native, and one Devon. They had no feed more than what they got in the pasture, excepting about three weeks, when they had some corn fodder.

Mr. Robinson's dairy was devoted to cheese making with the exception of one day—the last of the trial.

His account stands thus :

1,623 lbs.	$184.53
1,351½ lbs.	162.18
7 lbs. Butter, one day,..	1.75
Produce of six cows 5 months,	$348.46

. Here is an income of $58 per cow for a period of five months, for *cheese alone*, an average produce per cow of over 3¼ lbs. of cheese daily.

Mr. Robinson's cows were grade Durhams, and they had two qrts. Indian meal each per day during the five months.

Perhaps there are gentlemen in New-York and Vermont too, who have done better than those above named ; if so, we shall be happy to hear from them. E. N. N.

Why will not the Butter Come ?

Messrs. Tucker & Son—Can you or any of your numerous correspondents, solve for me the mystery, " why butter will not come," in some particular instances. I keep two cows—one of which was fresh in June, the other in October last. We have always churned twice a week, until within the last month, when we have churned but once a week—or rather attempted to churn. Our milk-maid always saves about two quarts of strippings every time of milking—that is put in the cream crock with a little buttermilk at the start. The cream, after four or five days gathering, is then put in the churn, thick and sour, and we have three times in succession now, churned nearly a day at a time without getting any butter. The cream just gets like froth or foam, and smells very sour. After letting it stand for six more hours, a kind of yellow scum. about half an inch thick, rises on the top. They put boiling water in the churn before commencing to churn, but it was of no avail. They have scalded well their churn, their cream and milk crocks. The churn is one of the "atmospheric" ones, as they are called. They have kept the milk of the cows separate, but with just the same results. I feed them corn fodder cut up on a patent cutting box, and then mix with it oats and corn, chopped together, and then wet it. They are also salted three times a week, and a lump of rock salt in the barn-yard. We have usually made eight or nine pounds a week besides the cream and milk used in the family, but we have quit the business entirely—given it up in despair. If you can explain it upon any other ground than *witches*, please out with it, and oblige, An Old Subscriber. *Franklin Co., Penn.*

A correspondent in one of our former volumes, says : The difficulty, however, is easily obviated, and most easily by using Crowell's Thermometer churn. When the butter manifests a disposition not to come, a gallon of boiling water should be put in the lower chamber of the churn, and the crank turned from five to ten minutes. If there are buttery particles in the cream, they will appear to be melted. The hot water should then be drawn off, and cold water substituted. A churning of about five minutes will then most assuredly fetch the butter. Such butter, when worked with judgment and care, may be made to be nearly as good as that produced in the ordinary way."

Coloring Butter with Carrots.

Messrs. Editors—I am well aware that the idea of coloring butter with the juice of the carrot, is still ridiculed by many, yet for all that, I think that if the practice was much more extensively practiced, it would be the saving, or rather the making of much money to those engaged in the manufacture of butter. Every person who has kept cows for the purpose of making butter, knows very well that there is a great difference in the milk of different cows, that of one making butter of a rich yellow color, while the milk from another will produce butter of a light color and inferior looking quality. During the summer, or while cows have a plenty of fresh sweet grass, the difference is not so apparent ; but during the fall, after the feed becomes frost-bitten, and in the winter and spring, there is a striking contrast between them. To those whose cows make light colored butter, I would say that by the judicious use of a small quantity of carrot juice, put into the cream, butter of a good color, and a fine flavor, can be made at any season of the year, as the carrot improves the flavor as well as the color of butter. I know that some persons advocate the doctrine, that if cows are fed with carrots, the butter will receive a sufficient color. I do not know but that a cow might be induced to eat carrots enough for that purpose ; but of one thing I am certain, that the juice of one carrot applied to the cream, will color more butter than five bushels fed to the cow. The present winter I am milking two cows; they are fed, milked, and taken care of just alike ; the milk of one makes a rich yellow butter, while from that of the other, butter of a light color can only be made, and which would not sell for more than three-fourths as much per pound as that made from the other, but by the use of carrots, the butter looks as nice and sells for as much as that from the first mentioned cow.

It has been the custom of many farmers in this vicinity for years past, to color the butter they make while their cows are fed on hay ; they thereby make a better quality of butter, and consequently it brings a higher price, which amply pays them for the extra time and trouble of coloring it.

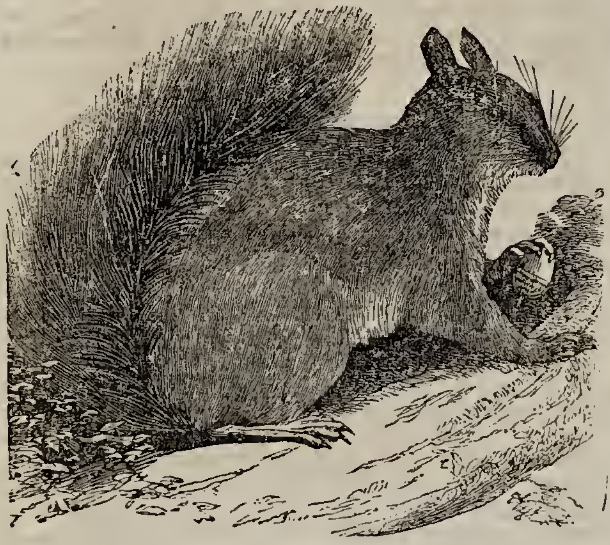
A short time since I received a letter from a lady in the state of New-York, requesting me to send her directions for coloring butter with carrots. Thinking that perhaps there might be others who read the Country Gentleman, that would like the same information, I will give it as follows :

To cream sufficient for ten pounds of butter, take two good sized Orange carrots—wash them clean, and grate off the outside, (or that portion which contains the coloring matter;) then pour a pint of warm water to it, and let it stand a short time to soak ; then strain the whole through a linen or cotton cloth, squeezing out the juice, which is to be put into the cream and churned together. More or less of the carrot may be used, as persons may wish to have their butter of a deeper or lighter color, and some carrots afford more coloring matter than others. C. T. Alvord. *Wilmington, Vt.*

A Page about Squirrels.

It is stated that there are in North America not less than twenty species of true squirrels, all of them dwellers in the trees, and by including the "ground" and "flying" squirrels (*tamias* and *pteromys*) the number might be increased to more than forty

Their agility is wonderful, and in grace and rapidity of motions, they are perhaps unequalled by any other animal. The height from which a squirrel will leap to the ground without injury, is spoken of as one of those marvels witnessed by every squirrel hunter.



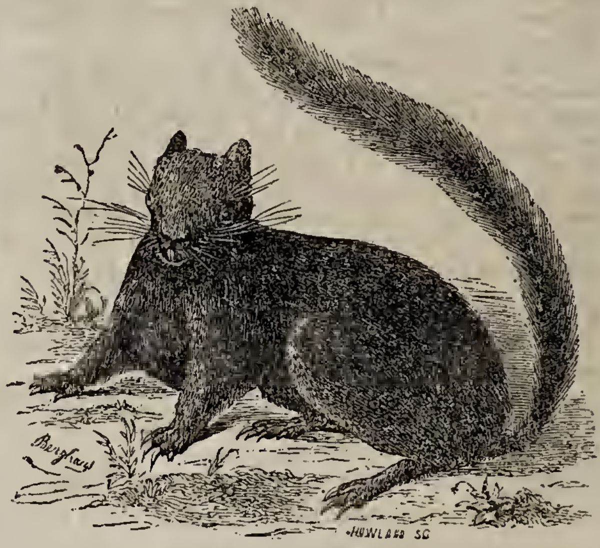
THE GREY SQUIRREL.

"When a tree in which it has taken refuge is found not to afford sufficient shelter, and a neighboring tree is not near enough for it to leap to, it then perceives the necessity of returning to the ground, to get to some other part of the woods. Some species, as the cat squirrel, fearing to take the dreadful leap (often nearly a hundred feet), rush down by the trunk. Not so the more active squirrels, as the common grey kind. [We present a cut of the Grey Squirrel herewith, which recently appeared in *Life Illustrated.*] These run to the extremity of a branch, and spring boldly down in a diagonal direction. The hunter—if a stranger to the feat—would expect to see the creature crushed or crippled by the fall. No danger of that. Even the watchful dog that is waiting for such an event, and standing close by the spot, has not time to spring upon it, until it is off again like a flying bird, and, almost as quick as sight can follow, is seen ascending some other tree.

"There is an explanation required about this precipitous leap. The squrrel is endowed with the capability of spreading out its body to a great extent, and this in the downward rush it takes care to do—thus breaking its fall by the resistance of the air. This alone accounts for its not killing itself."

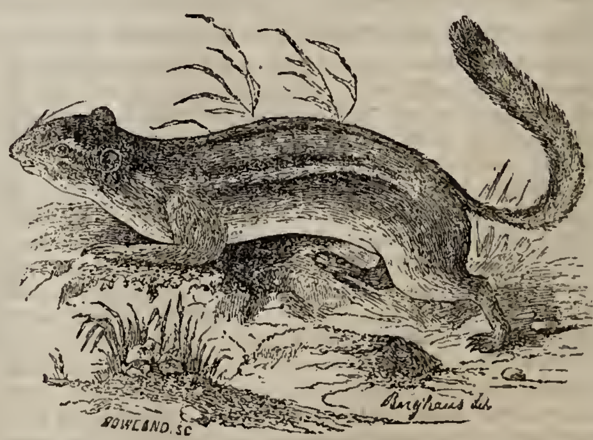
A remarkable peculiarity of the Grey Squirrel, is its singular and distant migrations, large numbers of them often setting out together on these journeys. Hence the name, *Sciurus migratorius.* Bachman gives an interesting account of one of these migrations, which he witnessed in the autumn of 1808. On that occasion troops of them suddenly made their appearance on the banks of the Hudson, which they attempted to cross in several places between Waterford and Saratoga. Many of them were drowned, and those which were fortunate enough to reach the opposite shore were so wet and fatigued that they were easily killed with clubs, and large numbers thus perished. There is no regularity about these migrations, and their motive even is not certainly known. Under ordinary circumstances these little creatures are as much afraid of water as cats, yet when moving along their track of migration they plunge boldly into it—whether but a narrow stream, or a broad river—without calculating whether they will ever reach the other side. It is stated that they roll pieces of dry wood, or bark, into the water, and, seating themselves on these are wafted across, supplied, nautilus-like, with natural sails,—or in other words, using their tails for this purpose: of course this account must be held as apocryphal.

Accompanying this article are also portraits (for which we are indebted to the same source), of the Striped and Black Squirrels. The former, the *Sciurus Striatus* of science, is known by various other popular names, such as Ground Squirrel, Chipping Squirrel, Hacky and Chipmunk. Its habits differ somewhat widely from those of other squirrels. It is usually seen running along fences or stone walls, under which it frequently makes its burrow, or sitting upon a decayed stump, within or beneath which it generally has a hiding-place. It rarely ascends trees, except when pursued and cut off from its hiding-place in the ground. Its light and graceful form attracts the attention of passers-by on most of our wooded roads between the fiftieth and thirty-third parallels of lattitude.



THE BLACK SQUIRREL.

A deadly feud is said to exist between the Grey Squirrel and Black Squirrel, and in the encounters which take place whenever the two species meet, the former is generally victorious; so that it is asserted that the latter will soon disappear from districts where grey squirrels become numerous—as the native rat gives place to the fierce "Norway." Its color is glossy jet black, and its fur finer and softer than that of its grey cousins. Its habits are similar.



THE STRIPED SQUIRREL.

We have not room to go beyond these three varieties; but those who are interested in Natural History can scarcely find in its whole range a more interesting family to study, than that comprising the different kinds of squirrels. They are, as all know, frequently hunted and killed in immense numbers; and they are also frequently caged as family pets. Better far than the latter, if we in the city would enjoy their pleasant company, is the recent action of the authorities in Boston and Philadelphia, who have set them at liberty in considerable numbers in their commons and parks.

The Housewife.

Recipe for Curing Hams, &c.

The following recipes are sent us by a friend in New-Jersey, who says—"Had you tested them as long as I have, you would not be afraid to endorse and spread them before your readers."

Ten lbs. of clean coarse salt—4 to 5 ozs. of nitre—4½ gallons of water, and 1 quart of molasses, to the 100 lbs. of meat. It is not necessary to boil the pickle, but remove the scum as it rises, previous to putting it on the meat. Pack *loosely* the hams and other pieces, and put on just weight enough to keep them covered. From four to six weeks is the usual time to let them remain, but a longer time will do no harm, as they get no salter when once saturated. It is a good precaution to take them out and *repack* them, in about 15 or 20 days, so as to give the pickle a better chance to get in. Many a ham has been spoiled through this neglect, without even suspecting the cause.

SMOKING.—Never make a smoke till the meat is done dripping, nor in damp or rainy weather. Smoke the meat with the door mostly open, and smoke without heating it. It will be smoked enough *before* it becomes as black and as bitter as the soot on the chimney back. All *smokers* (except tobacco smokers,) should bear that in mind.

For Seasoning Sausage Meat.

To 30 lbs. of well cut meat, from 9 to 10 oz. of clean, well rubbed fine salt, 4 ozs. of pepper, and 1 oz. of sage. If you use a cutter, as most persons do, apply the seasoning after the first operation, and then pass it through the machine again, which will facilitate the process of mixing, and which should be done thoroughly.

For Curing Beef.

Eight lbs. of clean coarse salt, 2 ozs. of nitre, 1½ lbs. of sugar, and 4 gallons of water to the 100 lbs of meat Remove the scum, and let the rounds and other drying beef remain in pickle from 9 to 14 days. Beef is not improved by smoking. Boiling meat will keep all winter in this pickle.

The Vinegar Plant.

[The following account of this plant or fungus, more particular than we have before seen, comes from a reliable source, and will be read with interest.]

I noticed in a recent number of the COUNTRY GENTLEMAN, an allusion to this singular and anomalous production. Having had a little practical observation of its nature and qualities, I may perhaps present some facts in relation to it of interest. I received one a few months ago from a friend, who had procured it in Plattsburgh, but from whence or how it was introduced at that place, I have not been able to ascertain.

I conjecture it to be a fungus, and that it is probably the concentrated essence of the substance commonly called "mother" in vinegar. It is somewhat darker than this substance, and of much firmer consistency, and may be taken up and handled without breaking or dissolving. It spreads horizontally with rapidity, until it fills the cavity of the vessel, and it is said that the pressure of its expansion is so great as sometimes to burst glass ware of common thickness. After attaining a vertical thickness of an inch or two, a second plant forms beneath the first. This adheres but slightly to the original, and may be separated with ease by slipping the hand between them. These layers or new plants, continue to form, and if not removed will fill the vessel. They form, and are ready for removal at intervals of about four weeks. I imagine, from the appearance of some vinegar made from this substance, which is contained in a transparent bottle, that the plant is also formed by its element rising and coagulating on the surface of the liquid. It may be rapidly propagated by the first process.

Water, sweetened and applied to the plant in an open vessel, is all that is necessary. A gallon of this water, combined with a plant of ten or twelve inches in diameter, will form vinegar fit for use in about three weeks. When a larger quantity of water is used or a smaller plant, the operation will be slower.

The vinegar continues to increase in acidity by age, and becomes equally pungent with that made in any other manner—indeed it will acquire too much pungency to be pleasant. When the vinegar is formed and removed, fresh water may be applied and the operation carried on indefinitely. A family may thus secure at an insignificant expense, a constant supply of most excellent vinegar. I confess that at first I entertained a prejudice against vinegar thus formed, and used it with reluctance, but without hesitation I now pronounce it equal in flavor and every other essential, to any I have ever had in my family. It is proper for me to add, although I doubt the fact, that it is represented, if the plant is broken or the mass be separated, that it loses its peculiar properties. W.

An Egg within an Egg.

MESSRS. TUCKER AND SON—You will advertise a curiosity by publishing the following:

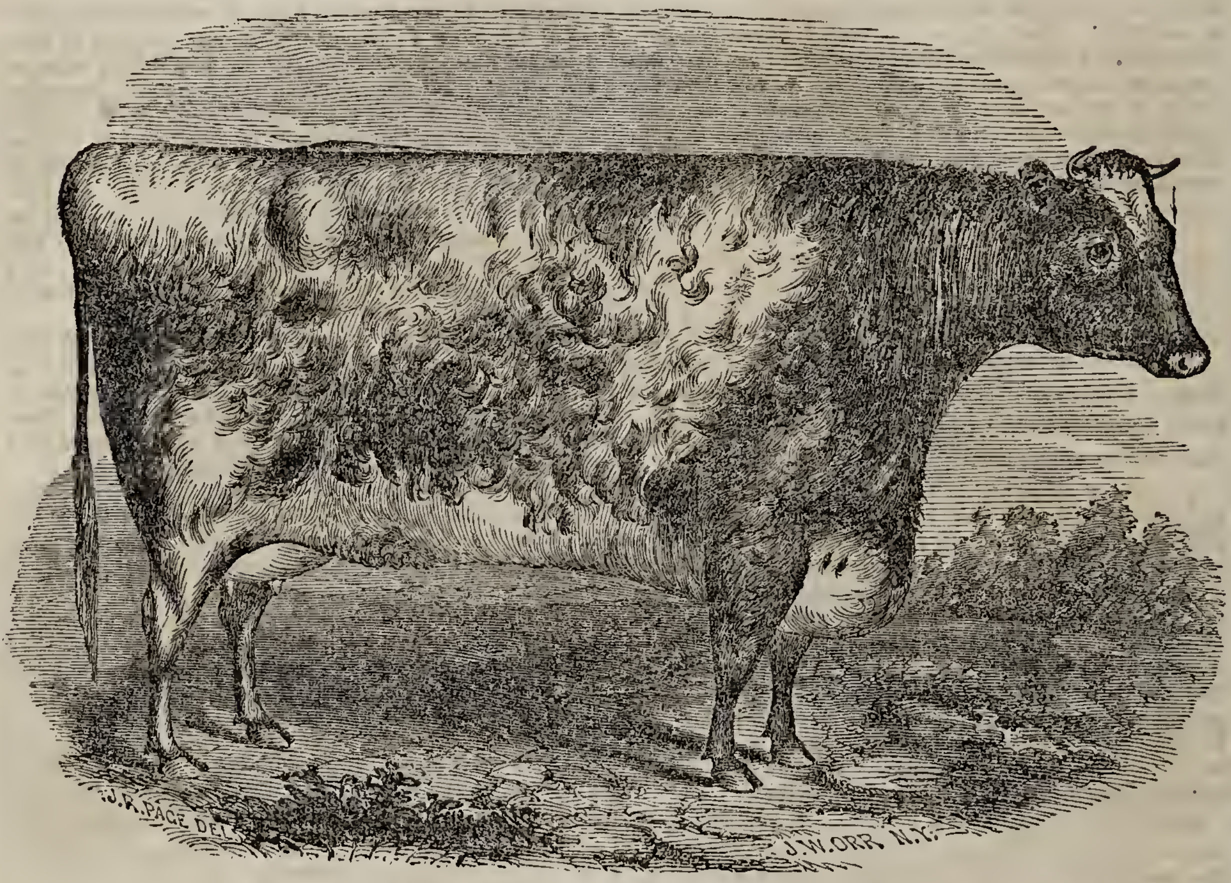
A Shanghai hen, owned by D. M. Rea, of Rushville, Ohio, laid an egg some time in December last, which is the greatest curiosity in the egg line, ever known in this section of country. It was nearly as large as a goose egg; and when broken, one perfect yolk and white was in it, and within that another egg of the usual size, and as perfect as any egg can be, shell and all, being an egg within an egg. If any one between the tropics of cancer and capricorn, can show a similar freak in nature, let them come out and proclaim it. We have the evidence to prove the above to be a reality and no hoax. E. KALB. *Rushville, O.*

Tobacco Water for Seeds.

I read in the Dollar Newspaper a short time since, a communication, stating that if all cucumber, melon, squash, and cabbage seeds, and all such seeds as had the two first leaves ready formed in the seeds, were soaked in a weak solution of tobacco water for 2 to 6 hours before planting or sowing, it would keep the cut worm and ground flea from depredating on them, until they were too large to be injured by them. Now I wish to know if the tobacco water would not be likely to injure the germ so that they would not grow at all? C. G.

Tobacco water, however concentrated it may be, does not prove poisonous to vegetable growth, and would undoubtedly produce no injury to cucumber and other seeds. The small quantity that would pass into the new plant, would not probably repel any insects—we have no expectations whatever that it would, but it is very easily tried.

POLAND OATS.—We have received a very fine sample of these oats from I. W. BRIGGS, Esq., P. M. a West Macedon, N. Y., who, we take it for granted, desires us to say that he has a quantity of them for sale This, however, is against our rules, all such matters belonging to the advertising department.


J.R. PAGE DEL.
J.W. ORR, N.Y.

Oxford 13

Roan; calved January 7, 1850; bred by Thomas Bates of Kirkleavington; the property of NOEL J. BECAR, New-York; got by 3d Duke of York (10166,) dam Oxford 5 by Duke of Northumberland (1940,) g. d. Oxford 2 by Short Tail (2621,) gr. g. d. Matchem Cow by Matchem (2281,) gr. gr. g. d. by Young Wynyard (2859.)

Oxford 13 was winner of the 1st prize at the State Fair at Saratoga in 1853, as the best Cow 3 year old and upwards.

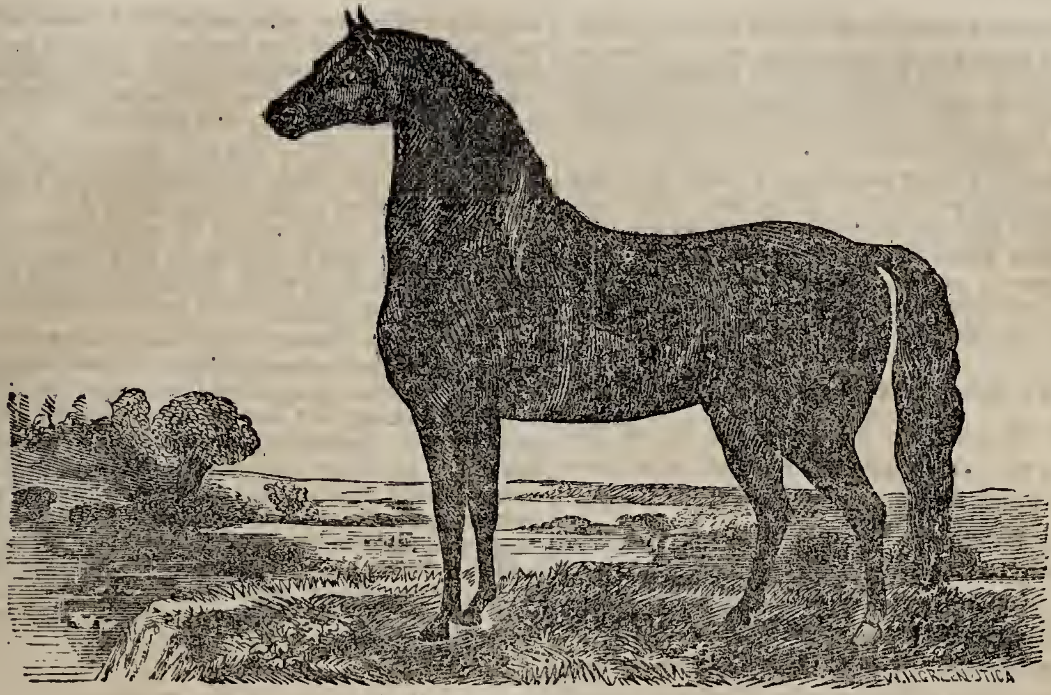
An Experiment Easily Made.

If any of the readers or borrowers of this paper should be so ill-prepared for the winter feeding of his stock as to have nothing beside dry hay for them—nothing even for his cow or cows but dry feed, let him be assured that his cattle are suffering in *comfort*, and that he is suffering in *purse*, on account of his not having provided some additional food. If he doubt this assertion, let him put an end to this doubt by an experiment of no great expense or difficulty. Let him procure from some neighbor a few bushels of turnips, swedes, carrots, parsnips, mangolds or beets, or any other root used in feeding. Let him also procure some bran, shorts or meal of corn and cob ground together, oil-cake meal, or anything of the kind. And now, regularly once or twice a day let him cut hay enough to fill nearly a bushel basket, slice up one or two pecks of any of the above-named roots, put them into a half barrel tub, add one to two quarts of any of the meals which we have named, and then pour on a pailful of hot water. When all these are well stirred together, with the addition sometimes or regularly of a little salt, say one teaspoonful or so, and the mess is of the proper temperature, let the cow with which you are trying this experiment have the mixture. Perhaps the best time to let a cow have such a mess is just before milking, or at milking time. She will be the more likely to give down her milk freely.

Having noted the quantity of milk given before this experiment, and also the quantity and color of the butter, make a note of the same things during the time of your experiment, which ought to continue not less than four weeks Calculate the returns you have received in increase of milk and butter both as to quantity and quality, not forgetting the increased *comfort* of a creature made dependent on you therefor. If the result is not a resolution that next year you will raise your own roots, or more of them, and that you will feed all your cows, after this, *in some such way*, then we are mistaken.

A Precocious Pullet.

EDITORS CULTIVATOR—A circumstance which occurred in this neighborhood during the past season, has been communicated to me, and as it appears to be thought somewhat singular, I forward you the facts. A person living about a mile from here at present, raised a large flock of chickens, hatched first day of May last, of which flock several commenced laying when four months old; one of the chickens having completed a litter of eggs, commenced clucking. And the owner, in order to see the result, put the eggs under her. On the first day of November last, the hen being then six months old, had a brood of eleven chickens, hatched by herself from eggs of her own laying, the chickens being then eight days old. The statement is confirmed by several respectable persons living in the neighborhood. I saw the hen and seven of her chickens about three weeks ago—four of the flock had died from cold and exposure. Six of the flock most strikingly resemble the mother—the seventh differed slightly in appearance from the rest. The hen is of the common dunghill breed of the country, with perhaps a slight cross of the Cochin China. This, however, I only infer from the general appearance of the hen, as the owner could not certainly inform me whether there had been a cross or not. BLUE NOSE. *St. Andrews, N. B., Jan.* 3, 1856.



"Black Hawk Hero."

Property of Tho's Gould, Aurora, Cayuga Co., N. Y. Bred by Frederick Miner, of Bridport, Addison Co.. Vt. Foaled July 20th, 1851. Sired by David Hill's "Old Vermont Black Hawk." He by "Sherman Morgan," by "Justin Morgan," by "True Briton." "Hero's" dam was sired by "Sherman Morgan," and from a high bred "Mambrino" mare, and trotted a mile repeatedly in two minutes and fifty seconds without training. Hero is a rich *coal block*, with one white hind foot. He stands at 4 years old, *without shoes*, over Fifteen Hands high, and weighs over Nine Hundred Pounds. The above engraving of this horse was drawn from nature.

Black Hawk Hero took the First Premium as foreign Two-year-old Stallion, at the New-York State Show at Saratoga, in 1853; and the First Premiums at the Cayuga County Shows in 1853 and 1855.

A New Wind Power.

Messrs. Tucker & Son—Believing that any information which would be interesting and profitable to the numerous agricultural and mechanical readers of the "Country Gentleman," would be acceptable to you, I communicate the following:

The rapid rise in the price of labor for a few years past has led very many to wish for some cheap and simple *motive power*, to which they could attach various labor-saving machines, for sawing wood, cutting fodder, threshing, cleaning and grinding grain of all kinds, churning, raising water, &c. This desire of others as well as myself, has especially occupied my inventive faculties for some three months past, the result of which is a very greatly improved *wind power*, which, in my opinion, cannot fail eventually to supersede all wind powers now in use, and be an exceedingly *useful* thing for every farmer and mechanic. It has been about a month since I first put the working model in operation, during which time it has been seen by many of our townsmen, scientific and practical men, by all of whom it is considered an exceedingly curious, simple and useful invention. I have this week sent my papers to the "Patent Office," so that I suppose I shall be safe in giving a general and brief description of its nature, construction and operation.

The nature of it is such, that *wind*, as a *motive power*, is more available and useful by its use, than by any other heretofore used, particularly in the following points: It is *always* in a position to receive the *full force* of the wind, however often or suddenly the wind turns to different points of the compass. It is more convenient and less expensive attaching machinery to its shaft, which extends perpendicularly from the axis of motion directly down into the apartment where the machinery is, than to the horizontal shaft of all other wind powers, which is necessarily at considerable distance in altitude and longitude from the machinery. It is more easily made sufficiently firm to resist the force of any violent gale without being blown down. It is cheaper, being made of wood and canvas, and so simple in construction that any ordinary wood mechanic can readily make one, and obtain the necessary materials in any country town. Its revolutions being horizontal, instead of vertical like other wind powers, it may be more advantageously covered with a roof to protect it from the sun and storms; or if not covered, as there is no gearing except at the lower end of the shaft, its motion will not be materially obstructed by storms of any kind; and it is a more perfect regulator of its own velocity, &c.

It is constructed with an upright shaft, having 6 or more horizontal arms attached to its upper gudgeon, to the end of each of which is a perpendicular cross-piece, of some more than the length of the arm, to which are hung 2 wings of the same length, one opening towards, and the other from, the center of motion. There is also attached about midway to each arm, a stick with a clasped weight at the outer end so arranged that it may clasp the wings and prevent their opening.

When the wind blows gently, both wings upon one arm open to receive it—the inner one opening first, which causes the machine to revolve, and the wings upon each arm open consecutively, as they arrive at a certain point, and close as they approach a certain point upon the opposite side, constantly opening and shutting like the wings of a bird. As the velocity increases by increase of wind, the centrifugal force has a tendency to prevent the wing turning towards the center of motion, from opening, thus leaving but one wing or half the surface, for the wind to operate upon, and offsetting the effect of the increased force of wind, and having a tendency to keep the speed or motion equal. The regulators have also the same effect to a much greater degree, as an increase of velocity in the revolutions of the machine bring them up by centrifugal force towards the wings, and prevent their opening so wide, or even at all, according to the velocity the regulators are designed to admit of. As the speed decreases, they are brought back to their place by gravitation, their upper pinion being back of the base or center of gravity. The regulators are connected with a lever or gate at the lower end of the shaft, so that the wings may be closed as readily and in the same way as the gate to a dam.

From the above brief description I think you and your readers may get an idea of the new Yankee invention, which the inventor believes may, in addition to all purposes where a *stationary* power is wanted, be advantageously used in navigation upon rivers and lakes for transportation of *freight* especially. R. Nutting. *Randolph, Vt.*

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Comparative Value of Varieties of Spring Wheat.

Messrs. Editors—In the December no. of *The Cultivator*, you ask of those who have had experience in raising China Wheat, to contribute their mite, or knowledge, through your valuable paper, in regard to its comparative value with other kinds of spring wheat.

First, I would say that I have had as much experience in farming and wheat-growing as most men of my age; and secondly, that I have been so far through the mill, that I was counted worthy of being placed at the head of the largest flouring establishment and grain depot in western New-York.

We buy grain of all kinds, but particularly deal largely in wheat, of which I will give you the price-current at this time, as it will enable us to arrive at the point about as definitely as in any way.

Soules wheat, pure White,	$2.12½
Fair grades of Red and White mixed,	$1 87½ to $2.00
China, first quality,	2.00
Fife or Scotch,	$1.50 to 1.87½
Black Sea,	$1.37½ to 1.50

It is very seldom you will meet with any other kinds of spring wheat in this country. Within the last two or three years the China and Fife have taken the place of other kinds. The reason why China wheat brings a better price than other kinds, is—first, the berry or kernel is of a soft smooth nature, grinds soft, even and flat, and makes flour that will compare favorably with good winter wheat; and secondly, the hull or bran of the wheat (if properly harvested) is thinner and it makes more flour from a given number of pounds of wheat, than any other kind except the Black Sea. We have no difficulty in getting a good price for all China flour sent to market, and cannot fill one half the orders we have.

I have never known the China wheat to rust and shrink, although the last season our wheat crop was much injured by the grub, which caused it to ripen unevenly; consequently the berry is not as uniform as it otherwise would have been. It grows a hard strong straw, and unless an uncommonly stout growth, never lodges or crinkles down, and usually gives from twenty to twenty-five bushels per acre, according to season and cultivation—have known it to give over thirty bushels per acre on common unmanured lands.

With some farmers, the China is objected to on account of the thin or light chaff, which causes the berry to lie nearly naked or uncovered in the head. If suffered to remain until it gets fully ripe, it is very liable to shell in harvesting, or if there is a heavy storm of rain or wind it will be likely to shell. The only remedy is to harvest early. With most farmers and all millers, it is no objection. It will grow well on any of our common wheat lands.

One word about the Fife or Scotch wheat, and why some farmers prefer that kind. I find on inquiry, (and I have a great opportunity for that,) that the Fife wheat grows more bushels per acre than China, and is not as liable to shell in a storm or in harvesting. Some say they had rather raise and sell it for one shilling per bushel less—that they can make as much per acre and harvest at their leisure. But with a surplus of low grades of flour, and a tight money market, and the China will find its way first to market.

Bread from Sping Wheat Flour.—One great difficulty with our ladies, in changing from winter to spring wheat flour, is, the spring wheat flour requires more labor; the dough should be made stiff or harder, worked longer, and a little more care taken to keep the cold air from it when rising, and baked a little longer in an oven evenly heated by hard seasoned wood.

Bread from Sprouted Wheat Flour.—On account of the great amount of rain we had last season, some of our wheat is sprouted, but you will meet with very little among our best farmers, or those who harvested early. Should any of our ladies be unfortunate enough to get flour made from sprouted wheat, they can still have good bread, by observing the above directions, with the addition of a piece of alum, say as large as a common size walnut, dissolved in water and added to the wetting, for a baking for a family of four or five, or half a wine glass of highwines for same baking. Daniel Parker. *Angel Mills, Watertown, Jefferson Co., N. Y., Jan.* 1856.

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Culture of the Potato.

Eds. Co. Gent.—From the experience of the past year I am induced to offer for publication a few thoughts on the culture of the potato. Having had extensive correspondence with a great number of individuals on this subject, I have finally come to the conclusion that this fine vegetable can be secured from the disease almost entirely by the mode of culture. I would here remark that the general opinion prevails, that the finer kinds of this plant are more subject to rot than the coarser varieties. I think this opinion is just. The past season, a portion of my field was not hoed, in consequence of the incessant rains during the hoeing season. In digging, there was a marked difference between those hoed and those not. In no case where they were not hoed, could any be found at all affected by the disease, unless some few were imbedded very deeply in the soil. They were tolerably clear of weeds, and on a light loamy soil. In the case of J. M. Hallock of Medusa, mentioned by me in the Country Gentleman of 20th Dec. last, and also in the Jan. no. of the Cultivator, they were not even plowed between the rows, only kept clear by careful hoeing. He informs me that the tubers grew in many instances almost entirely out of the ground, and in many cases the vines trailed, and formed small sized tubers for some considerable distance from the root. He remarked that they grew in clusters, immediately around the roots of the vines, many of large size appearing to lie on the top of the ground, and some of them running down endwise from 6 to 10 inches. These freaks, which it is so desirable to witness, I imagine are more or less to be ascribed to the mode of culture.

From these premises, I will now state the mode of culture I intend to pursue the next season. I do it *in time*, so that if any objections be made to it, I can have an opportunity to correct my plan before planting time. I have a field of 5 acres—an old pasture, the clover pretty much run out. The stone have all been taken off, having dug it over with the crowbar some 7 or 8 year since. I intend to plow deep early in the spring, and turn the furrow as flat as can conveniently be done, so as to destroy all vegetation. Soon as the top of the furrows become dry and loose, to harrow the field with a short tooth harrow, so as not to invert the sod, and to do this as often as once a week until I get ready to plant. Then roll the land with a light two-horse roller, so as to obliterate all the marks of the drag teeth. Then with a one-horse marker, to mark it out both ways in rows 2 feet 9 inches asunder—plant one piece about the size of a butternut in the angles—throw in the hill at the same time, a small handful of plaster, hen manure, guano or ashes, which ever I may have on hand at the time—cover with a hoe not to exceed 1½ inches in depth, making the hill broad and flat, taking care that no roots of grass or weeds be brought round the hill, and all such on the surface to be carefully destroyed. This kind of care would lessen the work of hoeing very materially—"a stitch in time saves nine." Soon as the tops have fairly broke through the hill, give them another small handful of plaster or other fertilizer, so as to give them the start of any weeds that may chance to have escaped the hoe in planting. As soon as the tops are of good size, and in dry weather, run a shovel plow both ways between the rows; lastly, with the hoe stir all the ground between the rows left by the plow, and the field is done until time to dig. My experience is all in favor of early digging. Observations on this part of the subject must be left till another time. The variety that I cultivate are just as good for cooking, dug early as late. G. W. Durant. *Rensselaerville, N. Y.*

Income from Forty Sheep.

Messrs. Editors—Below I give the income of 40 Merino sheep which I wintered last winter:

Fed to them by estimation seven tons, about equal quantities oat straw and meadow hay, worth $5.00 per ton,......................	$35.00	
Two bushels mixed grain, fed in the spring,...	2.00	
Expense washing, shearing, &c.,..............	5.00	
Pasturing at thirty-four cents per head,.......	13.60	
Interest on the capital, $160, is, ...	9.60	
And have now a flock left valued at $100, which reduces my capital $60, which I add to expense,..............................	60.00	
		$125.20
Credit by wool sold,........................	$ 81.00	
By sheep and lambs sold,..................	148.00	
		$229.00
Leaving a net income of,...............		$103.80

or $2.59 per head. D. F. *Thetford, Vt.*

Worms in Horses.

Messrs. Editors—Can you or some of your subscribers, inform me through *The Cultivator*, how to rid horses of worms. C. M.

We shall be glad to receive the experience of any of our readers in answer to the above; in the meantime we give the following from Allen's "Domestic Animals:"

The long white worm (*lumbricus teres*) much resembles the common earth-worm, and being from six to ten inches in length, inhabits the small intestines. It is a formidable looking animal; and if there are many of them, they may consume more than can be spared of the nutritive part of the food, or the mucus of the bowels. A tight skin, and rough coat, and tucked-up belly, are sometimes connected with their presence. They are then, however, voided in large quantities.

Remedies.—A dose of physic will sometimes bring away almost incredible quantities of them. Calomel is frequently given as a vermifuge. The seldomer this drug is administered to the horse, the better. When the horse can be spared, a strong dose of physic is an excellent vermifuge, so far as the long round worm is concerned. But a better medicine, and not interfering with either the feeding or work of the horse is emetic tartar, with ginger, made into a ball with linseed meal and treacle, and given every morning, half an hour before the horse is fed.

A smaller, darker colored worm, called the needle-worm, or *ascaris*, inhabits the larger intestines. Hundreds of them sometimes descend into the rectum, and immense quantities have been found in the cœcum. These are a more serious nuisance than the former, for they cause a very troublesome irritation about the fundament, which sometimes sadly annoys the horse. Their existence can generally be discovered by a small portion of mucus, which, hardening, is found adhering to the anus.

Remedies.—Physic will sometimes bring away great numbers of these worms; but when there is much irritation about the tail, and much of this mucus, indicating that they have descended into the rectum, an injection of linseed oil, or of aloes dissolved in warm water, will be a more effectual remedy. The tape-worm is seldom found in the horse.

Lewis County Dairies.

Messrs. Tucker & Son—I have read Mr. Shepard's statement of the products of his dairy of five cows, which made 795 lbs. of butter and 135 lbs. cheese. The cheese made being equal to 44 lbs. butter, it would give 168 lbs. butter to each cow. Now as I consider this a challenge, I take the liberty to accept it, and would say that I kept eleven cows the past season—one of them a 3-year old and two of them 2-year olds. I have made and sold from them 172 lbs. butter to the cow. [We omit what our correspondent says about "$140 for sour milk," as there is nothing of the kind in Mr. Shepard's statement—Eds.]

But I can tell you a much larger story about butter-making, and from common cows. Mr. Rea of West Turin in this county, made and sold from sixteen cows, 212 lbs. butter to each cow, and this beside the butter used in the family.

Another instance, Mr. Wm. Olivers of this town, kept five cows the past season, and sold butter from them to the amount of $56.46 per cow. So you see Mr. Shepard's Ayrshire cows can be beat in making butter. Isaac Brinckerhoff. *Martinsburgh, Lewis Co., N. Y.*

Croup and Whooping Cough.

I send you the two following receipts for the cure of two of the most common diseases among children, viz: Whooping Cough and Croup. The remedies cost nothing, can be administered by anybody, and are always at hand. The croup remedy will cure the patient in two hours. I ask the credulous and incredulous to give them a trial.

Whooping Cough.—The best kind of coffee prepared as for the table, and given as a common drink to the child as warm as it can be drunk; and a piece of alum for the patient to lick as often as it may wish. Most children are fond of alum, and will get all they need without being urged, but if they dislike it, they must be made to taste of it eight or ten times in the course of the day. It will effectually break up the worst case of whooping cough in a very short time. To adults or children in the habit of taking coffee, the remedy is good for nothing.

Croup.—A piece of fresh lard, as large as a butternut, rubbed up with sugar, in the same way that butter and sugar are prepared for the dressing of puddings, divided in three parts, and given at intervals of twenty minutes, will relieve any case of croup not already allowed to progress to the fatal point.—*N. Y. Evening Post.*

☞ A correspondent, alluding to the preference given by many farmers to partisan papers over those devoted to their particular interests, says: "I have known poor men work themselves up into comfortable circumstances by cultivating the soil, but not one to get rich on politics."

Winter Meeting of the State Ag. Society.

According to notice the Society met at the Assembly Chamber, at 12 o'clock on Wednesday, and having been called to order by the President, Hon. SAMUEL CHEEVER of Saratoga,

The Treasurer's Report was read by Secretary JOHNSON, showing

Receipts of the year together with cash on hand at last meeting,	$17,045.55
Expenditures,	14,301.86
Cash on and,	2,743.69
Premium medals and books on hand,	225.00
Total assets,	$2 968.69

The Report of the Executive Committee followed: congratulating the farmers of the State on their own prosperity and that of the society during the year, and looking forward with confidence to a long course of future prosperity and usefulness. These reports having been accepted, an animated discussion on the propriety of permanently locating the Fairs of the Society at one or more places, was opened by a resolution from Mr. GEO. CLARKE, of Otsego. In the course of this, answers to the circulars sent by the Executive Committee to the County Societies, were called for, and it appeared that only thirteen had responded, of which nine advocated and four opposed the proposition. After dinner the whole subject was voted not in order.

Mr. COREY then moved the appointment of the usual committee of three from each Judicial District, to nominate officers for the ensuing year and to recommend a place for holding the next Fair. Agreed to, and while the committee were in consultation, Mr. DENNISTON, of Steuben, in answer to a call from the Secretary, gave a detailed history of the origin and formation of the Wool Grower's Association of Western New-York, of which he was the first President.

Judge MILLER, of Monroe, followed with some facts in regard to the Western Fruit Growers' Association, and opened a discussion on the failure of the peach crops, in which he was followed by Messrs. Baldwin of Onondaga, Newcomb of Rensselaer, Stevens of Genesee, Miller of Orange, Judge Cheever of Saratoga, and Mr. Conger of Rockland. The last named gentleman also brought up the subject of the introduction into this country of the Cashmere goat. His account of the animal was very interesting, and we regret we have not space to give more extended notes of his remarks. Mr. Dickinson of Steuben, followed with some spirited remarks on *his* methods of fruit growing.

The committee of 24 now entered, and Mr. Patterson reported in their behalf the recommendation of UTICA as the place of holding the next Fair. Also the following list of officers:

President.

THEODORE S. FAXTON, Utica, Oneida Co.

Vice-Presidents.

1. JONATHAN THORNE, New-York.
2. EDWARD G. FAILE, Westfarms, West. Co.
3. HERMAN WENDELL, Albany.
4. WILLIAM KNOX, Canajoharie, Montg. Co.
5. ENOCH MARKS, Camillus, Onondaga "
6. FRANCIS M. ROTCH, Lewisville, Otsego "
7. D. W. C. VAN SLYCK, Lyons, Wayne "
8. ALONZO S. UPHAM, Le Roy, Genesee "

Executive Committee.

HUGH CROCKER, Utica.
C. S. WAINRIGHT, Rhinebeck, Dutchess Co.
GEORGE J. J. BARBER, Homer, Cortland
ALARIC HUBBELL, Utica.
JAMES BRODIE, Ellisburgh, Jefferson Co.

Corresponding Secretary.

BENJAMIN P. JOHNSON, Albany.

Recording Secretary.

ERASTUS CORNING, Jr., Albany.

Treasurer.

BENJAMIN B. KIRTLAND, Albany.

It was then moved and the motion after a very short struggle carried, to substitute WATERTOWN for Utica in the report of the Committee, which was then adopted, and the officers unanimously elected as above nominated.

A recess was then had until 8 o'clock, at which hour Dr. FITCH delivered an address on Entomology, for which we regret we cannot make room. He touched upon its importance and reviewed his own labors during the past year, engrossing closely the attention of his hearers. It will be embodied in his report to the Society.

The meeting of the Society the next day was mainly devoted to the reading of the list of Premiums awarded, which are as follows:

FARMS.

First, John V. Groove, Ovid, Seneca Co.	$50
Second, John Westfall, Lyons, Wayne Co	30
Third, James McLallen, Trumansburgh	20

DAIRY AND GRAZING FARMS.

First, Wm. N. Holmes, Greenwich, Washington Co	30
Second, Leonard D. Clift, Putnam Co	20

BUTTER.

1. R. T. Carpenter, Southport, Chemung Co	$15
2. J. S. Holbert, Chemung, Chemung Co.,	10
3. Noah Hitchcock, Homer, Cortland Co	5
4. R B. Gibbs, Harpersfield, Delaware Co	S. S. Medal.

Mrs. Wm. H. Sotham, Owego, Tioga Co., sample winter-made Butter from cows fed on carrots and dry hay. This Butter was superior to any presented for competition. Awarded a large Silver Medal.

CHEESE.

First, John Gillet, Scott, Cortland Co	$15
Second, E. F. Carter, Le Ray, Jefferson Co	10
Third, Clinton Ringe, Homer, Cortland Co	5
Fourth, Moses Eames, Rutland, Jefferson Co	Trans.

CORN.

J. V. Grove, Ovid, Seneca Co., 45 21-100 acres of Corn—4441 bushels of ears—special premium,	Diploma.

CARROTS.

First, E. C. Bliss, Westfield, Chatauque Co., 1,280 bus. per acre,	$8
Second, E. C. Bliss, Westfield, Chatauque Co., 1,120 bus. per acre	5
Third, E. C. Bliss, Westfield, Chautauque Co, 650 bus. per acre	Vol. Trans.
Jos. H. Coons, statement not complete,	Vol. Trans.

PEAS.

First, Norman Gowdy, Lowville, Lewis Co., 52¾ bushels per acre	$8
Second, Asa Otis, Pamelia, Jefferson Co.,	3

TIMOTHY SEED.

Lewis Potter, estimated 9¾ bus. per acre	Vol. Trans.

CLOVER SEED.

Wm. P. Ottley, 3 33-60 bus. per acre,	Vol. Trans.

CORN FODDER.

E. C. Bliss, Westfield, Chautauque Co	$3

OATS.

First, E. M. Bradley, East Bloomfield, 96 8-10 bushels per acre	$15
Second, E. C. Bliss, Westfield,	5

SPRING WHEAT.

E. F. Carter, Le Ray, Jefferson Co., 3 acres 3 rods yielded 95¾ bush	$5

DRAINING.

T. C. Maxwell & Brothers	$20

DRAINING SWAMP LANDS.

Wm. J. Johnson, Geneva	$10

IRRIGATION.

E. C. Bliss	$20
Sanford Howard, Boston, Essay on Grasses and Herbage	40

GRAIN AND SEEDS.

Best bbl. Spring Wheat, David Hess, Fenner, Mad. Co.	$5
Second do, David Coonradt, Brunswick, Rens. Co	3
Third do., O Howland. Auburn	2
Best bu. Rye. David Coonradt	5
Second do., Volney Burgess, Chatham. Col. Co.	3
Third do., A. E. Van Allen. Clinton, Rens Co.	2
Best bbl four-rowed Barley, O. Howland, Auburn	5
Best bbl. two-rowed do do do	5

Best bbl. Oats. David Hess. Fenner, Madison Co	5
Second do., I. W. Briggs, Macedon, Wayne Co	3
Third do., David Coonradt	2
Best bbl. Yellow Corn, Volney Burgess	5
Second do , David Coonradt	3
Best bbl. white Corn, do	5
Best bbl. Peas, Volney Burgess	5
Second do., N. Gowdy, Lowville, Lewis Co	3
Best bbl. Beans. David Coonradt	5
Second do., H H. Doolittle, Phelps, Ontario Co	3
Third do., O. Howland, Auburn	2

DISCRETIONARY PREMIUMS.

J. P. Noxon, White Creek, Wash. Co , Flax Seed	$3
A. E. Van Allen, Clinton, Rens. Co., bbl. Buckwheat	3

WINTER FRUIT.

Best 20 varieties of Apples, F. Atwater, Ithaca	$4 and Dip.
Second best 20 varieties of Apples, Wm. M. Holmes, Greenwich, Washington Co	$2 and Downing.
Third best 20 varieties of Apples, E. S. Hayward, Rochester	Thomas
Best 10 varieties of Apples, David Coonradt	$3 and Dip.
Second best 10 varieties of Apples, R. A. Downs, Greenbush, Rens. Co	$1 and Barry.
Third best ten varieties of Apples, William P. Ottley, Ontario Co	Trans.
Best dish Apples, F. Atwater, Ithaca,	S. S. Medal.
Second " " E. S. Hayward, Rochester	Trans.
Best collection Winter Pears, A. Saul, Newburgh, Orange County	Dip. and S Medal.
Second best collection of Winter Pears, T C. Maxwell and Bro., Geneva	S. S. Medal.
Best variety Pears, E. Dorr, Albany	do
Best specimen Grapes, do	do

SPECIAL PREMIUMS—CHOICE FRUITS NOT ENUMERATED.

E. C. Frost, Tompkins King Apples, Catharine, Tompkins Co	Vol. Trans.
J. Hildreth, do., Schuyler Co	do.
J. V. Grove, do., Seneca Co	do.
Wm P. Ottley, Spitzenburghs, Phelps, Ontario Co.	do.

In the evening the Society met again at the Assembly chamber, and listened to very interesting and instructive addresses from S. W. JOHNSON, of Yale College, and the retiring President Judge CHEEVER, who concluded by introducing the newly elected President, Mr. FAXTON of Oneida, who briefly returned his thanks for the honor conferred.

During the evening Secretary JOHNSON read an invitation to the Society from the Am. Scientific Association to attend its next session in this city in August next. This was accepted, and on motion of Mr. Conger, the Society resolved to unite with the Scientific Association in its invitation to Baron LIEBIG to be present on that occasion.

After the customary vote of thanks to Officers, and to the Assembly for use of its Chamber, the Society adjourned.

THE SHOW AT THE ROOMS.—There was on exhibition at the rooms of the Society, a fine display of Apples, and a good one of other fruits, and a very fair lot of grains, seeds and dairy products. The list of Premiums awarded, will be found above.

The Apples shown included several meritorious collections not mentioned in the Premium List. Among them were those of J. W. BAILEY, Esq., of Plattsburgh, Dr. WENDELL of this city, and D. A. BULKLEY of Williamstown, Mass., and excellent specimens of the Winter King variety from Messrs. Braman, of Ithaca, Hildreth, of Schuyler, and others, and of various other sorts from Messrs. Kirtland of Greenbush, John S. Goold of this city, J. H. Watts of Rochester, R. A. Downs of Blooming Grove, Dr. Elmendorf of Cherry Hill, and others. We give no further names of exhibitors of Pears and Grapes, and of Grains and Seeds, Butter and Cheese, than will be found in the list of premiums, for want of room. Mr. Dorr of this city, showed what most of those present had probably never seen before, Plums in February. Among other curiosities, we may name a portly pair of Onions from Stanford Brothers of Sacramento, Cal., the two weighing in their present dry state only *five pounds*.

THE NEXT STATE FAIR.—The reader will find on another page, a full account of the doings of the New-York State Ag. Society, at its annual meeting held in this city last week. The attendance was good, though not perhaps as large as on some previous occasions. An excellent spirit was manifested, and though there was some contest about the location of the Fair, all passed off in the most harmonious manner. It will be seen that the committee appointed for that purpose, reported in favor of Utica as the place for the next Fair, which was changed by the Society to WATERTOWN ; and at a meeting of the new Executive Committee on Thursday, it was resolved that the New-York State Fair for 1856, be held at Watertown, on the 30th of Sept. and the 1st, 2d and 3d of October—provided the citizens of that place comply with the requirements of the board, previous to the first of April.

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The Poultry Show.

The Exhibition of Poultry by the members the "N. Y. State Poultry Society," held in this city last week, was thought an improvement on its predecessors, at least in point of the excellence of the birds shown. The *tall* sorts from the vicinity of Shanghai, did not prove so monopolizing, nor did they seem to attract more than their due share of attention. They were out in pretty large numbers, however, and perhaps appeared on the whole to better advantage than they have sometimes done. Dorkings, Polands, Spanish, Game, Silver Pencilled Hamburghs (or Bolten Greys,) Golden Hamburgs, Sebright and other Bantams, were all quite well represented. There was a good attendance also of Turkeys, Ducks, Geese and Pigeons.

M. M. Kimmey of Cedar Hill, William Hurst of this city, and D. S. Heffron of Utica, were among the best and most successful exhibitors, the last taking prizes, he informed us, on twelve out of fourteen lots. Mr. Kimmey deserved credit, as did one or two others, for the very neat manner in which his fowls were cooped. He had a pair of Hong Kong geese weighing 45 lbs., and we do not know that these were the heaviest in the room Mr. Hurst's Sumatra Game Fowls were well worthy a passing notice ; the fine assortment of Pigeons shown by C. Bentecou, Esq., of Rensselaer Co. attracted considerable attention, as did also the beautiful Rabbits of Messrs. Thomas Gould of Aurora, and E. E. Platt of this city. Messrs. Geo. Anderson and William Frothingham, of Albany, and others whom we cannot now enumerate, showed some very excellent and much creditable stock.

At the Annual Election of Officers of this Society, held at Van Vechten Hall, on the 14th, the following gentlemen were chosen for the ensuing term :

President—E. E. PLATT, Albany.

Vice Presidents—MATTHEW VASSAR, Poughkeepsie; THOMAS GOULD, Aurora ; D. S. HEFFRON, Utica.

Cor. Secretary—R. C. MCCORMICK, Jr., N. Y.

Rec. Secretary and Treasurer—M. M. KIMMEY, Cedar Hill.

Managers—C. W. Goddard, Albany ; Dr. John Cole, Claverack ; George Snyder, Rhinebeck ; Dr. C. T. Smith, Goshen ; W. Frothingham, Albany ; R. H. Avery, Wampsville ; Peter T. Peck, Yonkers; T. C. Abrahams, Watervliet; H. G. Hart, Clinton ; H. N. Wicks, Albany ; A. A. Hudson, Syracuse ; D. D. Campfield, Schenectady ; E. A. Lawrence, Flushing, L. I. ; Samuel Sloan, Brooklyn ; William Hurst, Albany ; D. B. Haight, Dover Plains ; R. H. Van Rensselaer, Morris ; C. M. Scolefield, Yorkville ; S. W. Benedict, Rossville, L. I. ; Dr. C. Bontecou, Lansingburgh.

On motion, It was resolved that the Fourth Annual Fair of the Society be held at New-York city, during the first week of February next.

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A little salt sprinkled in starch while it is boiling, tends to prevent it from sticking ; it is likewise good to stir it with a clean spermaceti candle.

Inquiries and Answers.

Ruta Bagas after Carrots.—Would it be good policy, or indeed be considered a rotation, to put bagas after a carrot crop? W. J. P.

Experiment must decide the question of our correspondent. We are not aware that the trial for testing it has ever been made. Botanically considered, the two plants are quite dissimilar, the carrot being an umbelliferous plant, and the turnip belonging to the cruciferæ. Analysis might be supposed to throw some light on the subject—but the discrepancies of authorities are not very satisfactory. For instance, in a hundred parts of the inorganic constituents of the carrot, Prof. Johnston gives 53 per cent. of potash, and Dr. Salisbury 8½ per cent. only; Johnston gives 14 per cent. of soda, and Salisbury over 40 per cent. These disagreements of doctors, constitute an unsatisfactory basis for building a theory. Consequently we must again recommend our correspondent to make the trial.

Treatise on the Grape.—*W. Peters, Freeport, Ill.* For *vineyard* culture, Buchanan's Treatise is probably the best. It may be had of Saxton & Co., of New-York, for about 75 cents. For the cultivation of the grape in cold houses, Chorlton's is a good practical treatise; and for house culture in general, with and without fire heat, Allen's is best. Chorlton's may be had of Saxton & Co., postage paid, for 50 cents, and Allen's for $1.00.

Wind-Mills for Farm Purposes.—I wish to inquire through the columns of the Gentleman, whether Wind-Mills are successfully applied to threshing grain, as well as furnishing water? I have owned both Wheeler's and Emery's Machines, and I am not altogether satisfied with either—they are very hard on horses, and it is not every horse that will work on them. G. S.

I wish to inquire about Halliday's Wind-Mill. How high will it raise the water from a well 24 feet deep? Must it be immediately over the well? Has this power ever been applied to turning mills, cutting fodder, &c., and with what success? Could one be used for the former purpose and the latter too, at the same time? C. N. B.

Wind-Mills for stationary farm labor, have not been, as yet, much used in this country. Without some self-regulating attachment, they would require too much attention,—unless made too small for most kinds of work. Small four feet wheels have been applied to pumping water from shallow wells to advantage, but do not possess power enough for other purposes.

Halliday's self-regulating wind-mill has been in successful operation for about two years, and if made large enough, would doubtless accomplish the purposes desired, but we do not know how far actual experiments have been made. As threshing requires much power, the smallest sized threshing machine should be chosen for trial. For pumping water, it will of course raise it to any desired height by means of a forcing pump, or 30 feet through a suction pump. The mill need not be over the well, if a bent pipe is attached to the pump.

The newly invented, self-regulating *Vermont Windmill*, sold by Fowler & Wells, New-York, is highly spoken of, but probably needs further trial to establish its character for success and *durability*.

If any of our correspondents have made trial of wind-power, we should be glad to hear the results, in common with many of our readers. The fact that a power greater than that of a thousand horses, is almost constantly operating over every man's farm, should incite to persevering trials for rendering a portion of it available.

Chinese Potato, *Dioscorea batatas*—*C. D.* This plant has not been sufficiently tested, to warrant us in advising you to pay the present prices for the plants. It is well for those who take pleasure in testing new plants, whether useful or ornamental, to be at the expense necessary, and a very few may make it profitable by supplying the demand at high prices, but those who wish them simply for their own cultivation, would do well to wait until the the thing is proved valuable. You will find a full account of the Dioscorea batatas in the Patent Office Report for 1854, p. 169. The plants can be had of J. M. Thorburn, New-York, or W. R. Prince & Co., Flushing.

☞ A correspondent wishes a cure for corns on horse's feet.

Pears on the Apple.—Will you please to publish a list of pears, besides the Seckel, that are found to succeed well when grafted on the apple tree? J. W. N. *Alexander, N. Y.*

We would not recommend, in any case, the propagation of the pear on apple—as a general rule, no sort succeeds *well;* but the Seckel, Summer Bonchretien, Osband's Summer, and Vicar of Winkfield, grow the best of any we have observed in a very few trials. There are doubtless others which may do as well, but we do not know them.

Seed Corn.—I observe in an article on the Patent Office Report, in No. 158 of the Co. Gent., the Improved King Philip corn is spoken of as very early and very productive, and if the representations are correct it should be extensively disseminated among farmers in this section. I would suggest if any one has any seed of this variety which they would like to dispose of, they would do well to advertise it in the Co. Gent., stating the price at which they will put it up in packages of, say from one quart to one peck, and send it to those who may apply. Wm. F. Bassett. *Ashfield, Mass.*

Another correspondent is anxious to know where this variety of corn can be had.

We annex a letter just received, on this subject:

Messrs. Eds.—I noticed in No. 4 of your paper, that Wm. F. Bassett of Ashfield, inquires for the improved King Philip or Brown corn. Last season I received two packages of corn from the Patent-Office—one called the Baden corn, the other was what he wishes to obtain. I planted the Baden corn May 17th, on good ground. It grew large, but did not ripen well, and would not be profitable to cultivate in this latitude, but might do well in Maryland. The improved King Philip or Brown corn, was planted May 18th. It is an eight-rowed corn, eared low, ripened early, and produced well. I have no doubt but it will prove to be a valuable kind to raise in this vicinity. I intend to distribute (free,) what seed I can spare, and if Mr. Bassett will send me a few postage stamps, I will return them to him by mail on a small package of corn, by which he can obtain the seed. W. E. Boise. *Blandford, Hampden Co., Mass.*

Buckwheat and Indian Wheat.—Will you inform me through the Country Gentleman, if the buckwheat so much cultivated in New-York, is the old kind that has been raised in the country time out of mind, or a new kind that was introduced from Canada about ten or twelve years ago, called *Indian wheat.* The latter is extensively cultivated in Vermont, I am informed, and considered much the most productive, sometimes producing at the rate of 100 bushels to the acre. Which do you consider the best? A. C. *Concord,*

The buckwheat so extensively grown in this State, is the old and well known variety. We have heard nothing of the "Indian Wheat," for some years, and shall be glad to hear from some of our readers in Vermont, as to its value, productiveness, &c.

Turnip Cutter.—*B. E. H.* You will find a good root cutter at the agricultural ware-houses—price $10.

The Snail.—Can you inform me how to destroy the snail? I believe I have seen the same inquiry in your paper, but no answer to the question. The past season they have proved to me very annoying, attacking all garden vegetables, (except onions,) and not satisfied with the substantials, the scamps must have a taste of my flowers. The former could be forgiven, but the latter is unpardonable. They would eat all the leaves from the Petunias, Verbenas, and annuals of every kind. They make their appearance about twilight after sundown, and disappear about the same time before sunrise—of all sizes, from one-fourth of an inch to two inches long. I have tried applying whale-oil soap, tobacco water, and ashes. The only effect was, where the application touched a snail, the snail would cast off a slimy covering, and move on a short distance, and commence operations anew. I have applied salt to them, after collecting a quantity of them together, which was effectual in destroying them; but this was very much like catching birds by putting salt on their tails. In *these days* a more rapid method of extermination is desirable. Can you help me to it? Dwight H. Clark. *Oxford, N. Y.*

Fresh ashes have usually proved the best remedy for the slug. If any of our correspondents know of anything better, we should be glad to hear from them.

Drain Tile.—*B. E. H.* You will find some remarks on laying tile in the Co. Gent., vol. 6, p. 124; but the manufacturers will send directions with the tile. We are not aware that it is for sale in New-York city, nor do we know of a place where it is made, nearer you than Albany.

Pears—*O. J.* "Vicar of Winkfield," is the true name—not Vicar of Wakefield.

Orange Watermelon—*S. B., Plainfield, Ind.*—You can get a paper of the seed of this melon, by enclosing 25 cents in a letter to I. W. Briggs, P. M., West Macedon, Wayne Co., N. Y.

Moving West—*C. Gardner.* We cannot find the paragraph to which you refer, and have no information on the subject.

The Leveridge Willow.—Will you tell me whether cattle will eat the foliage of the new Leveridge, (properly Beveridge, named after the Newburgh brewer by Dr. Grant, who imported the willow,) so much recommended for Hedges? A. A. B. [Will some of the cultivators of this willow, answer the above?]

Breeding Horses.—Will you have the kindness to answer through *The Cultivator*, a few questions respecting horse breeding. To what age may mares be used for the above purpose? Will mares, twenty or twenty-five years old, bring colts? Is the ringbone, spavin or any other disease hereditary? Equus. [We shall be glad to hear from any of our readers in answer to the above.]

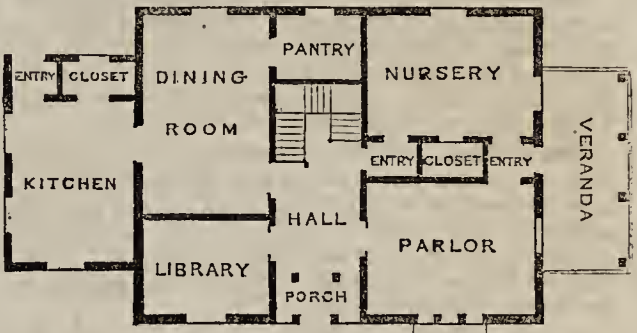
Disease in Sheep.—I had 66 good lambs when I weaned them, and before the 1st November 20 had died. They discharged a great deal of yellow matter from the nose, and snivelled or snored when breathing, as if the nose was nearly stopped up. I had one lamb die last week, from, I suppose, costiveness or constipation and inflammation of the bowels. It stretched its hind and fore feet as far asunder as it could. It eat nothing for a week till the day before it died, when it went out and picked some grass. I gave it a dose of salts and a little ginger, each day, the last four days, but they did not purge it. It was a fine, thrifty lamb. The best sheep I ever had, died of the same complaint, stretching, &c. What should I have done in all these cases? John J. Craig. *North Madison, Ind.*

Coal for Poudrette.—I should like to know, if any use could be made of bituminous coal dust in making home-made poudrette. I can get any quantity of it for nothing, and I want something for that purpose, in the place of swamp muck, which I cannot get here without great expense. I tried coal ashes on my potatoes, saturated with house slops, &c., but could not see any difference. W. W. *Jubilee, Ill.*

It is its absorbing or sponge-like quality that gives charcoal its value in the manufacture of poudrette; mineral coal is deficient in this quality, and is consequently of little value for this purpose. Probably the best thing our correspondent can procure in abundance, (and it is perhaps quite equal, if not superior to swamp muck,) is old-pasture turf, or turf cut out from fence-corners, where it is of no value. If piled up under a coarse shed, so as to become quite dry, its absorbent value would be much increased. After having rotted in the heap, it may be easily pulverized before using, which would be best, but not indispensable; otherwise the compost or manufactured poudrette should be pulverized afterwards. Even *well-dried* soil or loam, would answer a good purpose in forming this compost, probably as well as muck.

Plan of a House.—Could not you or some of my brother subscribers, give me a design for a small house with four rooms—a drawing-room, dining-room, library, and bed-chamber, all on one floor, the house one story high. I. E. O. *Buckingham Co., Va.*

The accompanying plan will perhaps meet the wishes of our correspondent. He says nothing of a kitchen—an indispensable apartment in every house. Possibly he intends a basement kitchen; if so, the wing in the plan may be omitted—it saves, however, many steps and much fatigue, to place the kitchen on a level with the principal floor.



The plan needs little explanation. The parlor and bed-chamber, (or nursery,) both open on the veranda, through a small entry for the exclusion of the direct cold air in winter. If desired, another veranda may be placed in front of the hall, library and parlor, extending about two-thirds the length of the three, or the present one may be omitted.

The places for chimneys are not shown in the plan. Stoves or open fire-places may warm the nursery and parlor, by placing the chimney at the inner end of the closet between them; and the dining-room and library be similarly warmed by a chimney in the partition which separates them.

An improvement in the plan we have given, would be made by using the kitchen "closet" for a pantry, with a door opening from it directly into the dining-room; and using the "pantry" for a china-closet.

Cleaning Apple Seed.—I have read your reply to an inquiry on this subject; but we want something by which the work can be done with less labor, and you would oblige me by inquiring among your readers for the best plan to clean apple seeds from pomace—by a rotary motion in water if posssible. W. D.

Devon Bull.—A subscriber in Canada East, wishes to purchase "a first-rate thorough-bred Devon bull." Any person having such an animal to dispose of, may address, post-paid, "Edmund Longley, Esq., Waterloo, Shefford Co., C. E."

Wyandotte Corn.—Will you or some one of your correspondents, please inform me with regard to the Wyandotte corn, obtained by Mr. J. R. Thomas of Waverly, Illinois, from the Wyandotte Indians? Will it grow as far north as Essex Co., Mass., and where can some seed be obtained? E. J. D. *Rowley, Mass.*

In the *Prairie Farmer* of Feb. 7, we find the following notice of this corn, which will serve as an answer to our correspondent, as well as enlighten all our readers on the subject:

"Some time ago we penned a brief caution in regard to this large new humbug; but it would appear that something more ought to be said on the subject. "The Wyandotte," or South-Western Squaw Corn, is one of those varieties of *soft* white corn in much favor with the Indians for home consumption, as it is easily made ready for use without the aid of a mill. Indeed, it is more than probable that it cannot be kept long, if reduced to meal; and it is equally certain that it will not do for shipping *in any form*, being almost, if not quite, destitute of the *oil* so necessary to its preservation in bulk. There can be no doubt, however, that as far south as Morgan county, in this state, the variety will ripen reasonably well, though probably not much, if any, north of there. But *when ripened*, it is fit only for distilling, or for starch; it cannot be kept in bulk, and is too tasteless for bread; though for making whiskey it may prove valuable, and yet we doubt even that, and warn our readers against planting it, except as an experiment."

Shepherd Dogs.—B. F. B., Shiawasse, Mich., can gain the desired information about shepherd dogs, by addressing William Wiggins, Wellsburg, Brooke Co., Va., or John Brown, Waverly, Chemung Co., N. Y. The latter gentleman informs us that his price is $20 a pair for pups, and $50 for a well-trained dog.

Broom Corn.—*G. W. T., Scott Co., Ky.* You will find two valuable articles—one from Kentucky and one from Connecticut—at pp. 330 and 410, of the last vol. of the Co. Gent. The same articles are in the Jan. and Feb. nos. of the Cultivator for this year. You will also find an interesting article on the subject in the Farmer's Encyclopedia, p. 351.

Planting Willows.—*N. D.* To plant an acre, the rows three feet apart, and plants one foot apart in the rows, as directed by Mr. Corning, in the article to which you refer, would require 14,520 cuttings. You will find an advertisement in the same no. of the paper that contains Mr. C.'s article, giving the price of cuttings.

Spliting Rocks or Boulders.—I would like to make an inquiry through *The Cultivator*, whether you, or any of your subscribers, know of any chemical composition, by applying fire or other means, that will break large rocks or boulders. If so, it would be of great value to many sections of our country. J. J. P. *Ann-Arbor, Mich.*

Build a hot fire on the rock, and the expansion by heat will split off large fragments. By immediately removing these with a crow-bar, so that the fire can act on the remainder, other portions will be separated, until the rock is broken up. We know of no better way, but would be glad to receive any information from our correspondents, furnishing an improvement on this mode.

Draining with Rails.—I observe J. B. S.'s remarks on the use of rails for filling underground drains. Will he inform me how many rails he lays in the bottom, as well as how wide and deep his drains are, and what he covers them with, to prevent the soil from filling up the passage for the water. D. D. *Winfield, Ind.*

Inquiry.—I have a fine three-quarter South Down buck that has been discharging through his nostrils, a thick watery substance, for about three months, and loses flesh with extra care and feed. Can you or any of your numerous readers inform me of the cause, name, and cure of the disease? John R. Smith. *Hawleyville, Ct.*

Subsoil Plow.—I am desirous of starting a subsoil plow the coming spring, and would of course like to purchase the most efficient implement. The two for sale here, are Ruggles, Nourse & Mason's, and Prof. Mapes'. From a close examination, the former seems to me the best, but the Professor's claims, backed by the N. Y. Tribune, would lead one to infer that his was vastly superior to any other in use. Can you, or some of your correspondents, give me some light on this important subject; not forgetting to back assertions with the reasons therefor. Or if there is a *better* and *cheaper* subsoil plow than either, to be bought, I should like to know it. Terra Nova.

Michigan Plow.—In using the Michigan plow, how many years may elapse before it will be necessary to plow again with it? To use it every year, would hardly pay, as we have to put on four horses. The rich soil of the prairies goes 2 feet, on my farm. W. W. *Jubilee, Ill.*

The answer to this question must depend entirely on circumstances. In many instances it will be eminently profitable and convenient to use the Michigan plow every year that a crop is planted; if for example, by keeping a deep bed of mellow soil, drouth is avoided, and the corn crop increased by 20 or 30 bushels per acre, the addition of two horses, per acre, would be a small comparative item of expense. In other cases, by turning under a fertile top-soil, and bringing up a sterile sub-soil, the *immediate* result might be decidedly unfavorable; and the difficulty would need the remedy of manuring this fresh upper stratum, or turning it back again, according to circumstances—a permanent benefit, however, resulting from this deepening process. The general benefit is from the *deeper* soil that is formed, the greater depth to which manure is mixed, the deeper bed of fertility for the extension of roots, and safety from drouth and excessive moisture. Frequent plowing will keep up this condition best.

Extracts from Correspondence.

Soaking Seeds in Tobacco Water.—Mr. T. Morse of Fairfield, Vt., writes us that he tried soaking his seed corn in tobacco water, to prevent wire worms from eating it. On examining it two or three days after planting, he found the worms were eating it very badly. He then planted some unsoaked. They eat that also, but seemed to prefer that which had been soaked. Our correspondent having some of the soaked seed left, scattered it over a piece planted near the barn. The hens ate it the same day, but did not venture on the lot again.

Seeds from the Patent Office.—A subscriber in Franklin County, Vt., says—"I received a few of the Champion Pea. They did not come up well, but what did grow were early and excellent. My Hungarian spring wheat did not come up well, but it spread remarkably, very much like winter wheat, but it had only now and then a head—in short, was a failure. The Trefoil also proved a failure."

Trout in Ponds.—Should you or any of your readers, be in possession of information respecting the propagation of trout in ponds made for the purpose, a few hints on the subject would no doubt be of interest to your readers generally, and would much oblige one who well remembers the happy hours of his boyhood spent in catching those fresh water beauties, once so plentiful in the streams of this neighborhood, but now becoming scarce from the saw-dust or from some other unknown cause. W. P. *Whitby, C. W.*

Kansas—Trouble in Horses—Agriculture, &c. —Extract from a letter from Dr. John Doy, dated Lawrence, Kansas, Jan. 15th—"As regards the farm, I am sorry to say, the epidemic among cattle, especially horses, rages fearfully. Numbers have died around us. I lost a large, fine horse by it. First his appetite failed, then he would turn his head around every now and then, and in about three hours appeared by his actions blind, walking over corn shocks, bogs, &c., although when my hand was near his eyes, he winked, showing he was not. It is a singular disease, and appears to be devastating this land of cattle. It is said that sod corn is the cause.*

Our surveys are going on; township lines are run, from which private surveys are made. In some cases three houses or squatters are found on one claim; therefore the local land office will find some work ahead. As to weather, we have been deceived. Christmas 1854, we wore no coats while at work—1855, the mercury was 22° below zero— in fact we have had a month thus far, of hard winter weather, with two inches of snow most of the time, and how much longer it will continue this deponent saith not. Although I have read so much about fencing I cannot decide what is cheapest for a fence, for four years, hero, as timber is not very plenty, (lumber $30 per 1000)—but, after that time I am satisfied the Osage Orange hedge will turn the cattle. My seed is already undergoing the freezing process preparatory to sowing. But I must close, with an offer of $1 for a full sized Dioscorea Japonica, through the Post Office of course, and I will pay the postage."

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* Perhaps a remedy for this disease may be found in Country Gentleman, vol. vi, p. 349.

The Clover Seed Crop.—You request your correspondents to give you some account of the crop of seed clover in their neighborhoods. In reply I would say the crop has never been so light in this section within my recollection. The drouth in the fall of 1854, or the ensuing cold winter, destroyed the greater part of the clover, so that there was but little clover cut for hay or seed. I observed some fine fields in Bucks Co., Pa., but the wet weather, during the summer and fall, caused it to grow too rank, and other grasses to spring up, so that many fields were cut for hay instead of seed. As you remark, a miscrop of clover seed is truly a national calamity. John W. Lequear. *Frenchtown, N. J.*

Winter in Indiana.—I have been a resident of the State of Indiana for 40 years, and I do not recollect of there ever being as cold a winter as the present. It has been six weeks to-day, (Feb. 4,) since genuine hard winter commenced, and the end is not yet. Today the mercury is 24 degrees below zero. Not only the peach buds, but the peach trees are all killed, and a great many of the apple trees are split from 2 to 4 feet by the hard freezing. There has not been one soft day in six weeks. Had it not been for the snow, which is one foot deep, the wheat would have been all killed. H. H. A. *Rockville, Ind.*

Kentucky Farming.—One of our subscribers in Daviess county, writes as follows: "My farm of 400 acres, has only been reclaimed from the forest eight or ten years, and could not be improved by manuring, but I aim by clovering, small grain, grazing and hog feeding, to keep it up to its natural fertility. I raised this year, 140 acres corn, 60 acres oats, 30 acres timothy hay, 50 acres clover. I also raised and fatted 35,000 lbs. pork, nett weight, and have fatted for market 25 head cattle."

☞ A correspondent in New-Hampshire, thus alludes to one of the reasons why so little progress is made in agricultural improvement: "The old folks at home, can barely raise enough for themselves, while their farms are sadly running behind hand, and things will be going from bad to worse, until our young men think it as respectable to work at farming, as it is to measure tape and draw molasses, or to patrol the country, tin trunk in hand, peddling nick-nacks."

Pork from Skim-Milk.—A Pennsylvania correspondent replies to the doubt recently expressed by a writer in this paper, about 100 lbs. pork being made from the skim-milk of a cow in seven months, by saying that if the writer "will call on Gen. J. S. Goe, at Tippecanoe, Pa., he will come to a different conclusion, as he may there see a Durham calf that at 4 months and 10 days old, weighed 590 lbs., and it got but one half of its mother's milk, and he will see more than one cow that will make 100 lbs. of pork from the skim milk alone, and at the end of the seven months will be shown a lot of butter that would surprise him, and perhaps Mr. Goe will be able to satisfy him of some more good qualities of his fine herd of Durhams."

Notes for the Month.

Light Wanted on Willows.—A statement is going the rounds of the agricultural and other papers, that basket willow is imported into this country to the amount of five or six millions of dollars' worth annually, and recommending the willow crop for general cultivation. In the last volume of the Statistics of our Commerce and Navigation, on the 220th page, the amount of manufactured willow imported, is put down at $132,658—of unmanufactured, at $45,459. Is there any other willow imported than that which is published in this volume by Congress? Are these figures reliable? If there is only $45,000 worth of the raw material imported, and if that is a good index of the present demand for willow, will not the extensive willow planters, who have gone into the business upon the belief that there is an unlimited demand for it, be greatly disappointed? What is the origin of this six million statement? Is there another multicaulis speculation in the wind? As you editors know every thing, please enlighten one of The Public.

With our correspondent, we ask for light on this subject. We cannot, however, believe that there is intentional deception. We have not been able to refer to any official documents, but all writers, including one in Hunt's *Merchants' Magazine*, which we have been able to find, place the amount at from three to five millions. The *New-York Tribune* of Jan. 29, says—"The importation of basket willows amounts to about $5,000,000 annually." The document quoted by our correspondent, ought to be correct, as it comes from the Treasury Department of the United States. If it is correct, whence has arisen this great error, by which $178,117 has been magnified into millions?

P. S. The Tribune of Feb. 1, says—"We are requested by a merchant in the trade to state that the importation of Osiers, set down in the statistical report at five million dollars, is simply fifty thousand—two cyphers too many being added. This bit of information may save many persons from an Osier fever."

Yield of Milk.—One of the most note-worthy statements under the head of *Dairies*, in the last Patent Office Report, is that of Josiah Southwick of Erie Co., N. Y., who has given a table showing the number of quarts of milk given by six cows during the year 1854. The highest quantity given by one cow, was 2,765 quarts, and the smallest quantity was 1,902 quarts—the average of the whole being 2,282. The milk was sold at the nearest railroad station, for just one-half the retail price in Buffalo, and at this rate the cow giving the most milk, yielded an income of $51.49, and the cow giving the least milk, yielded an income of $34.30, while the average of the whole six was $41.75. The value of the cows in Buffalo, would have been nearly double the sums above given.

Death of Dr. T. W. Harris.—Dr. Thaddeus W. Harris, the well-known entomologist, died at Cambridge, Mass., of dropsy on the chest, on the 16th. Dr. H. has been for many years librarian of Harvard University, a position which enabled him to pursue his favorite studies with great advantage. His work on "Insects Injurious to Vegetation," as well as his frequent contributions to our agricultural and horticultural journals, have been of great benefit to this branch of science.

The Right Spirit.—A subscriber in St. Lawrence County, in remitting his subscription, says,—"My rule is to pay down. I began the world with my hands and very little else, but sticking close to the rule I adopted, have accumulated a handsome fortune by farming; and I think it the most independent business there is. I have thought of writing you something about my progress; but as farming alone has been my occupation, the fear of error in composition has deterred me. If you will agree to make the necessary corrections, you may possibly hear from me. The art of farming has been a great study with me. The reason so many fail in farming, is because they do not understand the trade." We hope our friend will tell our readers how he has succeeded in acquiring wealth by farming, as what has been done by one can be done by another. We will make all the corrections necessary in his language.

BLOODY MURRAIN.—"A Subscriber" at Rockaway, N. J., thinking that "an ounce of prevention is worth more than a pound of cure," informs us, on the authority of one of his neighbors, that it is only necessary to "bleed a calf on the first Friday of its life," to prevent it ever having the bloody murrain. "Now," said my neighbor, "I do not suppose there is anything peculiar in the day of the week selected for the bleeding, but I cannot doubt the utility of letting blood during the first week of a calf's existence to prevent murrain, and I shall always do it." The loss of the little blood that will escape from a cut in the ear or tail, may not injure the calf, but the idea that it will have any effect in preventing the attacks of disease in future years, can only be believed by the credulous.

PHILADELPHIA SOCIETY FOR PROMOTING AGRICULTURE.—At a recent meeting of this Society, arrangements were made preparatory to the commemoration of the 71st anniversary of its existence, which will occur on the 11th of Feb. At the same meeting the following officers were elected for this year: President, DAVID LANDRETH—Vice Presidents, Aaron Clement, Anthony T. Newbold—Treasurer, Geo. Blight,—Corresponding Secretary, Sydney G. Fisher—Recording Secretary, A. L. Kennedy, M. D., Assistant Recording Secretary, P. R. Freas—Librarian, John M'Gowan—Executive Committee, Dennis Kelly, John M'Gowan, Charles W. Harrison, A. S. Roberts, John Lardner.

☞ We have received the Address of CHARLES B CALVERT, Esq., before the Frederick Co. (Md.) Ag. Society, at their third exhibition last fall. It is a more than usually valuable contribution to agricultural literature, is sound in the substance of its views, and forcible in the manner of presenting them. We shall take an early opportunity to give some extracts. —Also that of Dr. G. EMERSON, before the New-castle Co. (Del.) Ag. Society. It is devoted to the subject of guano and other special fertilizers, and treats of their use in a very sensible way. Dr. E. also alluded feelingly to the recent death of C. P. HOLCOMB, an active member of that Society, and always a prominent friend of agriculture.

PRIZE ESSAYS.—The Putnam Co. Ag. Society last year offered two premiums of $50 and $20, for the best two essays on the agriculture of the county—its defects and the best means for its improvement. The prizes were awarded for the first, to THOS. B. ARDEN, Esq., of Beverly, and for the second, to JOSEPH G. COLE, Esq. They have been printed in a pamphlet of fifty pages, for copies of which we are indebted to several of our friends. This pamphlet should be placed in the hands of every farmer in that county; and if they will study it as they should, and act upon its suggestions, an impetus will be given to improvement which will in a few years produce a great and beneficial change in the farming interests of old Putnam.

SHANGHAIS.—We published an inquiry a few weeks since, as to where pure Shanghai fowls were to be had, and stated that those who had them for sale could have "the privilege of our advertising columns to answer the inquiry." But all those who have sent us answers, seem to have overlooked the fact that the "privilege of our advertising columns," costs 12½ cents per line. We hope such of our correspondents as wish to advertise anything in our papers, will remember this fact.

KING PHILIP CORN.—Mr. Lawrence, whose communication on the subject we publish this week, informs us that he can furnish a small quantity of the seed of this corn, to those who wish to try it. *Query*—Is not this the same corn which was so much praised in the agricultural journals, under the name of "Brown Corn," a few years since?

LONG-WOOLED SHEEP.—Mr. E. C. DUDLEY of Meridian, Cayuga county, passed through this city last week, with a lot of long wooled sheep, which he had purchased of LAWRENCE SMITH, Esq. of Middlefield, Mass., consisting of seven ewes and two ewe lambs. They were good specimens of this breed of sheep.

POTATOES.—Mr. S. H. WILLIAMS of New-Hartford, Oneida county, furnishes us with the results of some experiments to ascertain how many potatoes he could raise from one. He planted four potatoes on new land, never plowed—soil black sandy loam—with the following result: No. 1—cut into 57 pieces—one eye to each piece—two pieces in hill—product 58 lbs. No. 2, 48 pieces, two to a hill—product 53 lbs. No. 3, 53 pieces, product 52 lbs. No. 4, 40 pieces—product 38½ lbs. Nos. 1, 2 and 3, were Mr. Goodrich's seedling, known as the "Purple Chili," and the fourth, a variety called "Leopard." The potatoes were all sound. He tried several other kinds, but these produced the most.

☞ We are indebted to J. W. BOYDEN, Esq., Sec'y Hampshire Co. (Mass.) Ag. Society, for the Transactions of that Society for 1855. It embraces the Address, by C. L. FLINT, Sec'y Mass. Board of Agriculture, the Reports of Committees, Statements of applicants for Premiums, &c., forming a valuable pamphlet of 72 pages.

CONNECTICUT STATE AG. SOCIETY.—At the recent Annual Meeting the following officers for 1856 were elected:

President—NATHANIEL B. SMITH, Woodbury. *Vice-Presidents*—Charles H. Pond, Milford; Norman Porter, Berlin.

Directors—H. A. Grant, Enfield; B. A. Andrews, Waterbury; Erastus Williams, of Norwich; R. B. Chamberlain, Coventry; Theodore S. Gold, West Cornwall; Amos D. Lockwood, West Killingly; Brainard Montague, Middletown; Eliakam Hough, Bridgeport.

Corresponding Secretary—H. A. Dyer, Brooklyn. *Recording Secretary*—John A. Porter, New-Haven. *Treasurer*—Nathaniel A. Bacon, New-Haven.

☞ The *Wool-Growers' Association of Western New-York*, give notice that their 2d exhibition will be held at Penn-Yan, commencing on the 27th of May next. A Premium List, amounting to $1000, it is said, is about to be issued.

NEW-JERSEY STATE AG. SOCIETY—The Annual Meeting was held at Trenton, on the 15th of January. The Treasurer's report shows the whole amount of cash received to have been $7,288.98. Expenses for premiums, &c., $6,972.23, leaving a balance in the hands of the Treasurer of $315.74.

The following is a list of the officers for the ensuing year:

President—Wm. P. Robeson.

Vice Presidents—1st Dist.—John R. Sickler. 2d do.—Thomas Bell. 3d do.—James Campbell. 4th do.—Benjamin Aycrigg—5th do.—George Hartshorne.

Executive Committee—Atlantic—Edmund Taylor; Burlington—John C. Deacon; Bergen—Col. J. Holsman; Camden, Edward Bettle; Cape May—Downes Edmunds, Jr.; Cumberland—Charles Elmer; Gloucester—Charles Reeves; Hunterdon—P. H. Hoffman; Mercer—Isaac R. Pullen; Middlesex—James Buckalew; Monmouth—Nathaniel S. Rue; Morris—Dr.

Wm. Kitchell; Ocean—Wm. Torry; Passaic—Thomas G. Aycrigg; Salem—Wm. B. Otis; Sussex—G. C. Shaw; Somerset—Peter A. Voorhees; Warren—Dr. J. Marshall Paul.

☞ *The "South-Western Agricultural and Mechanical Association"* at Louisville, Kentucky, held their fourth meeting in January last. The success of this Society has been great, as we learn from a report of its management. Commencing some four years since, under a debt of nearly $50,000, it has, with three exhibitions, reduced its indebtedness to about $13,000, having in the mean time paid out in premiums some $3,000 each year, and owning now about 40 acres of land near the city, beautifully improved for their show grounds. At the January meeting, Col. GEORGE HANCOCK was unanimously elected President; and L. Young, W. Miller, and G. Mallory, Esq., Vice Presidents. This society has two exhibitions in the year—in May and October.

BROOKFIELD TOWN AG. SOCIETY.—The annual meeting for the election of officers for the Brookfield Ag. Society, was held Jan. 8th, 1856, when the following officers were elected:

President—HERMAN A. HULL.
1*st Vice President*—Jerod Cheesbro.
2*d* *do.* Morgan L. Brown.
Secretary—A. L. Saunders.
Treasurer—John T. G. Bailey.

Ex. Committee—Peleg Stanbro, Jr., David L. Fisk, Tillinghast Gorton, Christopher Langworthy, Lewis D. Maxson, Gerrett Scott, Paul B. Burch, Chauncey V. Hibbard, and Luther Wheeler.

The Treasurer's Report was as follows:

Cash in treasury from last year,		$360.78
Receipts during the Fair,		473.12
Use of Tent by Lebanon Ag. Society,		20.00
Interest on surplus money,		22.16
		$876.06
Expended for new tent,	$250.00	
Expenses of Fair and Premiums,	321.02	
Secretary's salary,	20.00	
		$591.02
Balance in the treasury Jan. 8th, 1856,		$285.04

A. L. SAUNDERS, Sec'y.

AN INQUIRY SUCCESSFULY ANSWERED.—A subscriber to both the COUNTRY GENTLEMAN and THE CULTIVATOR at *Quebec*, subjoins the following note to a business letter: I beg leave to thank you for your prompt and ready insertion, both in the CULT. and Co. GENT., of the few lines I did myself the pleasure to address you some ten or twelve weeks since, inquiring for a cure for "warts" on horses; as well as for your publication of the several replies thereto; all of them I believe good. I am now reaping the fruit of your complaisance and their experience, in the almost total recovery of a fine mare from these ugly, unseemly eyesores, and painful excrescences. She is now in foal. T. N. S. [We are equally happy to publish both queries and responses from our subscribers. The puzzled, or the enlightened, on any point, common or curious, will please bear in mind. EDS.]

THE LARGEST AND SMALLEST TREE.—We furnished a description a few weeks since, of one of the largest California trees, (*Sequoia gigantea*,) measuring forty feet in diameter, and over four hundred feet high, and furnishing as much timber as sixty acres of good woodland in the State of New-York. This tree is computed to have been in existence as long ago as the time of the prophet Elijah. A striking contrast to this immense colossus, is afforded by some of the minute specimens of mountain growth. In ascending to lofty elevations, forest trees continue to become more diminutive, and Dr. Emmons mentions in his Geological Report, that evergreen trees are found on the Adirondack mountains, only five or six inches high; while Humboldt saw pines only three-tenths of an inch in height. The Californian monster was no less than *fifteen thousand times* higher than Humboldt's lilliputians; and if both were of about the same shape or degree of slenderness in form, the solid measure or weight of the one (or cube of 15,000,) would exceed that of the other, three million millions of times!

MEAT FOR NEW-YORK.—The New-York Tribune furnishes some interesting statistics in relation to the number of animals slaughtered in New-York, for the purpose of supplying the city with meat, during the year 1855. The total number is as follows:

Beeves,	185.574
Milch Cows,	12,110
Calves,	47,969
Sheep and Lambs,	598,741
Swine,	329,627
Total,	1,155,021

New-York and Ohio were the only states from which animals were present on every market day through the year. Of the number of beeves sold,

Ohio furnished,	32,135
New-York,	25,630
Illinois,	17,439
Kentucky,	7,057
Indiana,	6,677
Virginia,	2,044
Pennsylvania,	1,306
Connecticut,	560

BRIGHTON MARKET.—The sales at this market, near Boston, for 1855, are stated as follows:

65,050	Beef Cattle, estimated at,	$3,512,700
16,925	Stores,	524.985
216,420	Sheep,	833.217
71,222	Swine,	587,565
		$5,458,467

☞ *Pro Bono Publico*, Brownsville, Tenn., has our thanks for the paper of Orange Watermelon seed, received last week. We have divided it into parcels of one dozen seeds, and sent them to those who had applied to us for seed.

LARGE SALE OF MULES.—A Kentucky paper states that Lewis Castleton, Esq., of Fayette county, recently sold ninety two-year old and one hundred yearling mules, for the round sum of $26.000.

THE SUBSCRIBER

WILL give one or more persons of character, means and talent for farming, an equal chance with himself on a farm of about 700 acres. It is in a *beautiful* and *healthy* location on one of the most beautiful and fertile prairies of the West. Timber, schools and meetings, are convenient. It is well adapted to grain and stock.

Mt. Vernon Seminary (one of the most prosperous institutions of learning in Iowa,) is within eight miles.

For further particulars, address the subscriber at Fairview, Jones Co., Iowa. S. G. MATSON.
Feb. 21—m1t.

SALAERATUS.

THE subscribers offer to the trade Salaeratus of different grades of strength, which they claim to be superior in quality to any other in market, and entirely free from any deleterious ingredients.

We are the only Manufacturers whose process of manufacture is conducted under the immediate superintendence of an experienced practical chemist. Having been engaged for several years in the manufacture of our peculiar kind of Salaeratus, and being the originator of those manufactured, we can offer to consumers a guarantee of its great excellence, which no other manufacturer can do; the new kinds of Salaeratus pompously set forth, under various names, in different advertisements, being merely imitations of the article we originally introduced to the public.

We warrant the quality of all goods sold by us, and agree to return the purchase money, together with expenses of transportation, on every article that proves to be inferior to our representation of its quality.

JOHN DWIGHT & CO.,
Feb. 21—m3t* No. 112 Pearl-st., New-York,

The Tompkins County King Apple.

TREES of a suitable size for planting, of this variety, anp also the SCIONS can be obtained of A. BRAMAN, Ithaca, Tompkins County, N. Y. Feb. 21—w3tm1t*

BONE DUST,

GROUND, Turnings and Sawings.
For sale by A. LONGETT,
34 Cliff-st., corner of Fulton, New-York.
Feb. 27—w8tm3t

SPECKLED DORKINGS

AND Fancy Lop-Eared Rabbits, carefully boxed and delivered at the Express Office, Utica, at $5 each. For sale by R. H. VAN RENSSELAER,
Morris, Otsego Co,. N. Y.
Feb. 27—w3tm3t

Superphosphate of Lime,

OF the best Brands.
For sale by A. LONGETT,
34 Cliff Street, New-York.
Feb. 27—w8tm3t

Farmers' and Planters' Encyclopedia.

THE new and improved edition of this valuable book is in one volume, octavo, handsomely bound in Russia leather. It contains about 1200 closely printed pages, and is illustrated with numerous plates, of animals, plants, implements, etc.

The Hon. Marshall P. Wilder, President of the United States Agricultural Society, in a letter to the American Editor, G. Emerson of Philadelphia, says:

"After an attentive examination of your Farmers' and Planters' Encyclopedia, I take pleasure in recommending it as a standard work, abounding in practical and scientific information adapted to the comprehension of unscientific readers. A copy should be in the hands of every farmer or person at all interested in rural affairs. It is peculiarly well suited to the purposes of a premium book for distribution by Agricultural Societies, and in this way may be placed in the hands of many that it would not otherwise be likely to reach. In the publication of this work you have contributed greatly to promote the diffusion among our countrymen, of the best agricultural information, arranged in the most convenient form for ready reference.

Boston, April 7th, 1855."

To be had at the principal book stores in the U. S. On receipt of $4.00 by Luther Tucker & Son, Albany, N. Y., C. M. Saxton & Co., 140 Fulton-st., New-York, or D. Landreth & Co., 21 South 6th-st., Philadelphia, a copy will be forwarded to any part of the United States, free of charge for postage or carriage. *A liberal discount made to Agricultural Societies or Clubs taking a number of copies.*
Feb. 21—w1tmeom2t

To Farmers and Gardeners.

THE subscriber offers for sale a new and *very early* SEEDLING POTATO of his own raising, which for productiveness, hardiness, early maturity, and fine qualities for the table, is believed to be superior to any other variety in cultivation.

It has now been cultivated for four years, and every year has produced a large crop of sound tubers.

It is a white potato, and being larger and more productive than the "Early June," will be found particularly valuable for the market gardener, as it is quite as early as that variety. In testing the comparative value of this potato, the undersigned has made no attempt, by high manuring and extra cultivation, to produce a few hills of large potatoes, but in every instance it has been planted in the field with the "Early June" and other varieties, and in sufficient quantities to give it a fair trial; at the same time giving it the ordinary field cultivation. Under these circumstances, and notwithstanding the extreme drouth of 1854, it has in no season produced less than two hundred bushels to the acre, while in some it has produced three hundred.

Price $4 per barrel, delivered at the R. R. Depot or Steamboat Landing at Hudson.

References—S. K. Hogeboom and Wm. E. Miller, Esqs., Claveruck. Address E. G. STUDLEY,
Claverack, Col. Co., N.Y.
Jun. 31—w2tm3t

The Devon Herd Book—Vol. III.

THE subscriber is now ready to receive lists of animals for insertion in the third volume of the Devon Herd-Book, to be published at as early a period in the year 1856 as a sufficient number of subscribers can be obtained to warrant the issue. Terms: each patron is expected to take at least one copy, the price of which will be one dollar, and also to pay twenty-five cents for the registry of each animal—registry fee to be paid in advance. All animals to be eligible for insertion must be able to trace their descent from unquestionable North Devon stock on both sides.

It will be recollected that there has already been published an American edition of the first and second volumes of the Devon Herd-Book, bound together, with a frontispiece of the Quartly Testimonial, and containing two handsome illustrations of English prize Devons. The price for these two volumes will in future be two dollars. They will be forwarded as may be directed on the reception of the above sum.

SANFORD HOWARD,
American Editor of the Devon Herd-Book.
Office of the Boston Cultivator,
Boston, Mass., January 19th, 1855. Feb. 7—w3tm1t

A NEW WORK,

Gardening for the South.

BY W. N. WHITE, of Athens, Georgia. A most complete manual for every department of Horticulture. embracing the Vegetable Garden, the Fruit Garden, the Flower Garden, and the Pleasure Grounds, adapted particularly to the Southern States. Price $1.25.

To be obtained of all Booksellers, or sent by us prepaid to any part of the Union on receipt of price.
C. M. SAXTON & CO.,
Agricultural Book Publishers, 140 Fulton-st., New-York.
March—m1t.

C. M. SAXTON & CO.'S
AGRICULTURAL BOOK ROOMS.
140 *FULTON STREET, NEW-YORK.*
OUR NEW BOOKS FOR MARCH.

WE HAVE just published the following important books, which are valuable additions to our large list of Agricultural works:—

I.

Chorlton's Complete Grape Grower's Guide.

An illustrated Treatise on the Propagation and Cultivation of the Grape in the Vineyard, the Cold Grapery, the Forcing House and Retarding House; also on the Diseases of the Vine, their Prevention and Cure. Price 60 cts.

II.

The Cranberry and its Culture.

By B. Eastwood, of Dennis, Mass. Containing full instructions for the preparation of the ground, planting and cultivating the vines, as practised by the most successful cultivators; with plates illustrating the different varieties. Price 75 cts.

III.

Gardening for the South.

By W. N. White, of Athens, Georgia. A very complete and practical work, embracing the Vegetable Garden, the Fruit Garden, the Flower Garden, and the Pleasure Grounds. Intended especially for the Southern States. Price $1.25.

IV.

The Strawberry Culture.

By R. G. Pardec: A new edition, revised, with many important additions: containing also Directions for the Cultivation of the Raspberry, Blackberry, Currant, Gooseberry and Grape. Price 60 cts.

V.

Persoz's Culture of the Vine.

A New Process for the Culture of the Vine, by Persoz, Professor to the Faculty of Sciences of Strasbourg; directing Professor of the School of Pharmacy of the same city. Translated by J. O. C. Barclay, Surgeon, U. S. N. Price 50 cts.

To be obtained of all Booksellers, or sent by us prepaid to any part of the Union, on receipt of price.
Mar. 1—m1t&mar. 6—w1t

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Braintree, Mass.
Feb 1—m1y

UNITED STATES AGRICULTURAL

Warehouse and Seed Store.

MAYHER & CO., Nos. 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,

FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz :—

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle **D** and **F** Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of al. sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers.

Churns; fifty different styles, among which is the "THERMOMETIC CHURN," which is considered to be the best in use.

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf

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CHOICE GARDEN,

FIELD AND FLOWER SEEDS, among which are Poland, Siberian, Friezeland and Canada Branch oats—Mexican, Early June, Mercer, Carter, &c., Potatoes,—English Potato and Top Onions—20 varieties of Melons: White Imperial, Mountain Sweet, Orange, Long Island, Black Spanish, Early, &c. Watermelons—Skillman's, Pine Apple, Golden Nutmeg, Early Christiana, Large Cantalupe, &c, Muskmelons—White Spine, Early Frame, Long Green, &c., Cucumbers—Early Walcheren and London Cauliflowers—Okra —25 varieties of Flower Seeds for One Dollar.

I. A. CLARK,
Jan. 31—w1tm2t Marion, Wayne Co., N. Y.

General Land Agency at the West.

THE undersigned will attend to the making of entries on choice locations of Government Lands—to the purchase and sale of Lands, Farms, and Town property, in this and adjoining States—houses and lots in the cities of Racine and Milwaukie, Wis. Also the buying and selling of Real Estate in Chicago.

CASH PAID FOR LAND WARRANTS.

Letters, enclosing stamps, addressed to SOLOMON W. JEWETT, or JAMES J. JEWETT, Racine, Wis., or to S. W. JEWETT, 98 Randolph street, Chicago, Ill, will receive prompt attention. Jan. 31—w1tm1t

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GARRETT'S SEEDLING.

THE subscriber now for the first time offers for sale a few barrels of this new and superior Potato. It is a seedling of his own raising, is very productive, and not liable to rot. He presents it to the public with confidence that it will be found in all respects a valuable acquisition, and refers all interested in the subject to an editorial notice in the COUNTRY GENTLEMAN for Nov. 15, page 316.

Price, delivered in Albany at the Railroad or Steamboat Landing, $9 per barrel. Address S. C. GARRETT,
Nov. 22—w4tm3t* South Westerlo, Albany Co., N. Y.

SHEEP BOOK.

THE Breeds, Management, Structure and Diseases of the Sheep, with Illustrative Engravings and an Appendix. By Henry J. Canfield of Ohio—for sale at the office of this paper—price $1.00.

JUST PUBLISHED,

THORBURN'S RETAIL CATALOGUE for 1856, of Vegetable, Herb, Grass, &c., Seeds, will be mailed to any address on application.

J. M. THORBURN & CO.,
Jan. 3—w2tmjf&m—m3t 15 John Street, New-York.

FLOWER SEEDS.

THORBURN'S Descriptive Catalogue of *Flower Seeds* for 1856, embracing every desirable variety in cultivation, (1000 sorts,) with directions for their culture, will be sent to applicants enclosing a stamp.

Also, *Wholesale* Price List of the above by the quantity, for Dealers.

Also, Catalogue of Tree, Shrub, Hedge, and Evergreen Seeds. J. M. THORBURN & CO.,
Seedsmen, Nurserymen, &c.,
Feb. 1—m2t 15 John Street, New-York.

FOR SALE,

A VERY VALUABLE FARM.—The subscriber having determined to retire from business, offers his Farm for sale, containing about nine hundred acres of land, lying in Fairfax county, Virginia, about *ten* miles from Alexandria, Georgetown and Washington, which afford the best markets in the United States for the ordinary products of the farm.

The buildings are all comfortable; and the most of them have been erected within a few years. The *dwelling* is of *brick* with a frame addition containing *eleven* (11) *rooms*—the other buildings consist of *houses* for *laborers* with their families—a large *barn* and *stables*—*granary*—*carriage* and *wagon houses*—large *stone dairy*—*stone ice and meat houses*—a *large house* for *apples* and *cider* making, with *extensive cellars* for storing cider, and vinegar—and other necessary outhouses.

There are about 1000 *peach trees* of choice varieties; and 1500 or more *apple trees*, all in fine bearing condition; from which the subscriber realized last season between four and five thousand dollars, which amount might easily have been *increased to double by an efficient salesman.*

Large crops of *corn*, *wheat*, *oats*, *hay*, &c. are annually produced, for which the soil and climate are admirably adapted. The *meadows* are very *extensive;* and have yielded, without failure, heavy crops of hay for 40 years, without ever having been manured. The soil is easily improved; and is more retentive of improvement than any land within an equal distance of Washington.

It lies between two Railroads, one and a half miles distant from each. These roads, which will soon be completed, run through a lime-stone region 25 to 30 miles distant, and will be able to furnish it in any required quantity. The proprietor, 12 years ago, applied to a field 30 bushels of lime to the acre, with remarkable effect in increasing the crops, which effect still continues.

A large part of this land is in wood—much of it being heavy primitive *Oak-timber* suitable for ship building.

It is *abundantly* supplied with the *purest water.* In point of *healthfulness*, it *cannot* be *surpassed.* The subscriber's family, never numbering less than 25 persons, have not cost for medical services more than an average of $10 per annum, for the last *twenty years*

The wood-land is so distributed that the estate can be divided into several parts.

There are Methodist, Presbyterian, Episcopalian and Baptist churches in the neighborhood.

It is offered at thirty-five dollars per acre, which is not half its value—the orchards and meadows alone, being worth the amount demanded for the whole estate.

Its proximity to Washington, the permanent seat of the General *Government*, which is growing very rapidly in wealth and population, must, with its other advantages, increase its value annually.

Persons wishing to purchase will make application to

WM. Y. DULIN,
near Falls Church,
March 1—mtf. Fairfax county, Virginia.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
Oct. 11—mtf New-York.

APPLE SEEDS.

THE subscriber has about Twenty bushels Apple Seed for sale. Address N. H. NOYES,
Otisco, Onondaga Co., N. Y.
Feb. 21—w3tm1t*

STRAWBERRY POTATO.

A FEW barrels to spare—

Price—¼ bushel,	$ 1.25
½ "	2.25
1 "	4.00
1 barrel of 2½ bushels,	10.00

Delivered in Albany. Address G. W. DURANT, Renselaerville, Albany Co., or E. P. DURANT, 119 Pier, Albany.
Feb. 21—w1tm2t

Northern Muscadine Grape.

THE undersigned would inform the public, that after having had 25 years experience with more than 40 varieties of Grape, said to be adapted to this climate, they have never been able to find any that at all compare with the Early Northern Muscadine, either in point of flavor for the table, or for producing the richest of Wine—said by some of the best French judges to be the best Wine Grape they have ever seen in North America—its early habit of ripening, being on an average for 14 years past, from three to four weeks earlier than the Isabella, and pronounced by thousands who have eaten the fruit in our gardens, quite superior to that far-famed grape. As far North as our Society is located, the Muscadine, for fourteen years past, in point of profit, has yielded us 15 dollars, where the Isabella or any other kind of grape has yielded us one.

As we are in the business of producing new varieties of Grape, we are not afraid to challenge any of the Northern States to produce its equal; for we have impartially tried all the new varieties, and have in reality found nothing that compares with it.

This is an entirely new variety known as the Northern Muscadine or Shaker Seedling. It was produced in the Society of Shakers at New-Lebanon, Columbia Co., and State of New-York, and has been and still is with them a Standard Grape, that does obeisance to no other grape yet known as a hardy grape in these Northern States. This remarkably fine and high-flavored Grape was produced from the seed of the Native White Grape, growing wild on the banks of Connecticut River. Having proved it for 15 years past, in almost every situation, we can, with the greatest confidence, recommend it to the public as the very best, in every point considered, of any grape yet known in this Northern latitude; for we have intended to thoroughly prove the whole list of hardy grapes that were noted for their goodness, and then recommend truthfully according to the result of our experience. And as the puplic are now being most shamefully imposed on, by unprincipled persons selling grape roots that are worthless and good for nothing, under this name, Muscadine, we would caution all to beware of whom they purchase roots bearing the above name, as we will hold ourselves responsible for the genuineness of none but such as are ordered to our personal address, or of such of our agents as can show proper reference that we have duly appointed them. We have now on hand a choice supply of Roots ready for this spring's setting.

Principal Agents, { D. J. HAWKINS,
R. F. CROSSMAN,
Skaker Village, New-Lebanon,
Columbia Co., N. Y.
March 1—w1tm1t.

AGRICULTURAL IMPLEMENTS,

WHOLESALE and retail — FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse*.

GRIFFING, BROTHER & CO.
60 Cortlandt-St., New-York.
Feb. 14—w&mtf

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,
GRIFFING BROTHER & CO.,
60 Cortlandt-St., New-York.
Feb. 14—w&mtf

Choice Field and Garden Seeds.

THE subscribers have on hand for sale, a choice and large stock of FIELD SEEDS and GRAINS, with a full stock of FRESH GARDEN SEEDS, which they offer at fair prices.

150 bushels of superior Millett.
500 bushels assorted Spring Wheat.
100 bushels assorted Field and Garden Peas.
500 bushels Timothy and Clover Seeds, Blue Grass, Red Top,

With a full and complete assortment of all Field and Garden Seeds, and IMPLEMENTS and MACHINES for the farm and plantation, wholesale and retail, at the *Chicago Ag. Warehouse and Seed Store*, 45 Franklin-st., Chicago, Ill.
Feb. 7—w4tm1t HENRY D. EMERY & CO.

SYRACUSE NURSERIES.

DISSOLUTION.—The copartnership heretofore existing between Alanson Thorp, Wm. Brown Smith, John C. Hanchett, and Alfred Fahnestock, under the firm name of Thorp, Smith, Hanchett & Co., is hereby dissolved. Dated Syracuse, January 17th, 1856.

ALANSON THORP,
WM. BROWN SMITH,
JOHN C. HANCHETT,
A. FAHNESTOCK.

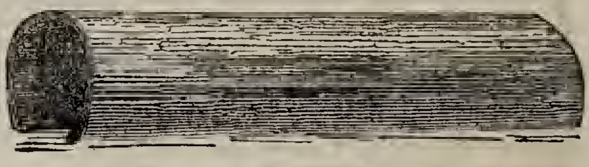
The business of the Syracuse Nurseries will be continued by the subscribers, under the firm of Thorp, Smith & Hanchett, to whom the property and effects of the late firm have been transferred, and who are duly authorized to settle all claims or demands in favor of, or against said firm.

ALANSON THORP,
W. BROWN SMITH,
J. C. HANCHETT.
Jan. 31, 1856—w4tm1t Syracuse, N. Y.

ALBANY TILE WORKS,

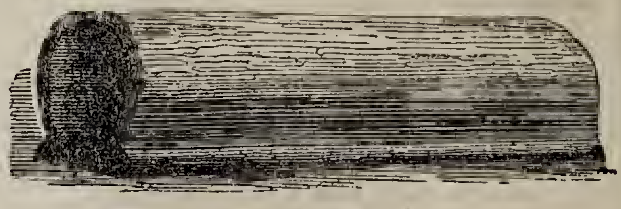
Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned, and over one foot in length. On orders for 10,000 or more, a small discount will be made.



HORSE SHOE TILE.

4½ inch calibre, $18 per 1000; 3½ inch calibre, $15 per 1000; 2½ inch calibre, $12 per 1000.



SOLE TILE, OR PIPE.

3 inch calibre,	$18 per 1000.
2 inch calibre,	12 per 1000.

Also on hand 8 inch Horse Shoe Tile for large drains, $8 per 100—5½ inch, $40 per 1000. Sole Tile, 4 inch calibre, for sink drains, $40 per 1000—6 inch calibre Octagon Pipe, $20 per 100—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
late Babcock & Van Vechten,
Albany, N. Y.
Feb. 21—w&m3ms.

New Chinese or Japan Potato,

DIOSCOREA *Batatas vel Japanica*. Orders are received, and will be filled in rotation by the subscribers, for this new and valuable esculent. Price $3 per dozen, or $20 per 100 tubers. Printed description with direction for its culture will be furnished to purchasers.

J. M. THORBURN & Co.,
Seedsman, &c.,
15 John Street, New-York.
Feb. 1—m2t

CRANBERRY CULTURE,

THE subscriber has issued a circular in relation to CRANBERRY CULTURE, and will forward it to all applications without charge. Also will forward PLANTS, in a fresh state, by Adams & Co.'s Express, to any part of the United States, or by any other conveyance requested. Price $7 per 1000. When clubs are formed for a considerable quantity, a liberal discount made. Should any of the plants die out with fair usage, other plants will be sent to fill all vacant places without charge. Address

SULLIVAN BATES,
Jan. 24—w&m3m Bellingham, Norfolk Co., Mass.

Hay Presses ! Hay Presses !

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.
Dec. 27—w&mtf

To Farmers and Gardeners.

YOUR attention is called to the Manures manufactured by the Lodi Manufacturing Co. from the contents of the sinks and Privies of New-York City, and free from offensive odor, called

POUDRETTE AND TAFEU.

Poudrette is composed of two-thirds night soil and one-third decomposed vegetable fibre. Tafeu is composed of three-fourths night soil and one-fourth No. 1 Peruvian Guano.

These manures are cheaper and better adapted for raising Corn, Garden Vegetables and Grass, than any other in market. Can be put in contact with the seed without injury, and cause Corn and seeds to come up sooner, ripen two weeks earlier, and yield one-third more than other manures, and is a *sure preventive of the Cut Worm.*

Two bbls. Poudrette or 100 lbs. Tafeu, will manure an acre of Corn in the hill. Tafeu 1¾ cents per lb. Poudrette $2.00 per bbl., or $1.50 for any quantity over 7 bbls., delivered on board vessel or Railroad, free from any charge for package or cartage. A pamphlet, containing every information, sent, postpaid, to any one sending their address to

THE LODI MANUFACTURING CO.,
Jan. 17—w&m4m 60 Courtlandt-st., New-York.

ICHABOE GUANO.

JUST RECEIVED by the brig Wave Spirit, direct from the Ichaboe Islands, a cargo of this superior Guano, (which is the first cargo arrived, since that brought by the ship Shakspeare in 1845.) This guano is now landed in excellent order, will be sold in lots to suit purchasers. Samples and analysis will be sent by addressing the Agent. As the quantity is small, early application will be necessary. Farmers who cannot remove what they desire, may have it remain on storage until April 1st, at 18¾ cts. per ton per month which includes Insurance.

Price $40 per ton of 2000 lbs.

A. LONGETT, Agent,
34 Cliff St., Corner of Fulton,
Nov. 1—w&mtf. New-York.

Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents. Apply as above. April 5—w&m1y

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Agricultural Books,

For sale at the office of the Country Gentleman.

Thorburn's Wholesale Catalogues

FOR 1856, of Vegetable, Flower, Tree and Agricultural Seeds, Spring Bulbs, &c., &c., *for the use of Dealers,* are now ready, and will be forwarded on application.

J. M. THORBURN & CO.,
Jan. 3—w1am3t—m2t 15 John St., New-York.

Tree, Shrub, Hedge, and Evergreen Seeds.

A COLLECTION of about 100 varieties.

Norway Spruce,	$1.50	per lb.
Scotch Fir,	1.50	"
Evergreen Cypress,	1.50	"
Black Austrian Pine,	3.00	"
Weymouth Pine,	3.00	"
Chinese Arbor Vitæ,	3.00	"

Magnolia Macrophylla, Osage Orange, Cedar of Lebanon, &c. &c.

J. M. THORBURN & CO.
Seedsmen, &c.,
Feb. 1—m2t. 15 John Street, New-York.

FISH GUANO.

THE Narragansett Manufacturing Co. of Providence, R. I., are prepared to execute orders for their Fish Guano. They have prepared their guano after two methods; one by chemically treating, cooking and then drying and grinding the Fish to a powder. This is put in bags and sold at $45 per ton. For the other variety the fish are prepared as above, (with the exception of drying and grinding;) and are then combined with an absorbent which is in itself a valuable fertilizer; and sold at $2 per barrel, containing about 200 lbs. This compost is of great strength, and must be a very efficient fertilizer, as it is composed in great part of simple flesh and bones of fish.

Dr. Charles T. Jackson, of Boston, has made an analysis of the Powder, and says:

" It is similar to Peruvian Guano in composition, with the exception that the ammonial matter is dried flesh of fish, and not putrified, so as to be ammoniacal. It will, however, produce ammonia by decomposition in the soil. One hundred grains of this manure, dried and finely pulverized, was submitted to analysis, with the following result:

ANALYSIS.

Ammonial matter, (flesh of fish,)	48-00
Phosphate of Lime,	33-90
Carbonate of Lime,	7-60
Sulphate of Lime,	6-40
Potash and Soda,	4-10
	100-00

Respectfully your obedient Servant,
CHARLES T. JACKSON,
Assayer to the State of Massachusetts,"
Boston, July 21st, 1855.

Dr. Jackson's opinion of our Guano is expressed in the following Note:

BOSTON, March 9th, 1855.

S. B. HALLIDAY, Esq.—Dear sir:—In reply to your letter, I would state my entire confidence in the superiority of a properly prepared artificial guano, made from fishes, over that of the natural guano of birds, obtained from the coast of Peru.

It is obvious that more of the nitrogenous, or ammonia producing substances, exist in fish prepared after your method, than are found in any guano, and hence the artificial preparation will go further in the fertilization of a soil.

The ammoniacal salts act chiefly in bringing the foliage into a healthy and luxuriant condition, and thus causes the plant to absorb more of the phosphate and other necessary salts and substances from the soil, and more carbonic acid from the air. The carbonate of ammonia also, is a solvent for humus, and it quickly saturates any injurious acid salts that may exist in the soil, and forms from some of them valuable fertilizers.

Respectfully, your obedient servant,
C. T. JACKSON, M. D., State Assayer, &c.

This Manure is offered to agriculturists with the assurance of its becoming one of the most popular to be obtained. The Company are ready to establish agencies at such points as are desirable for the convenience of Farmers. As the supply for this season is rather limited, the Company esteem it a favor to have orders forwarded early to enable them to lay down at their agencies the requisite quantities in proper time for use,—orders may be addressed to the Company at Providence, or to R. H. PEASE, Albany, N. Y. or R. L. ALLEN, New-York.

S. B. HALLIDAY, Agt.
22 West Water St., Providence, R. I.
Jan. 24—w6t—m6m.

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THE subscribers offer for sale

75,000 Mazzard Cherry seedlings,
20,000 Horse Plum seedlings,
75,000 one year grafted Apple trees,
75,000 grafted roots,
50,000 Osage Orange,
50,000 Basket Willow cuttings,
10,000 one year budded Cherry trees.

Also scions of Apple, Pear and Cherry.

Strawberry plants, 30 varieties.

Fruit and Ornamental Trees for orchard, garden and ornamental planting.

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March 1—w&m1t* Geneva, N. Y.

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 BROADWAY, NEW-YORK.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Thresher, and Winnowers, and other Agricultural Machines.

May 24—m12t*

HIGHLAND NURSERIES,

NEWBURGH, N. Y.

A. SAUL & CO., in calling the attention of the public to their establishment, deem a lengthened notice unnecessary. They would merely state that the stock of their nurseries, which they offer for sale the coming spring, is full in every department, and is of the best quality; including all the recently introduced *Pears* and other fruits, both *Dwarf* and *Standard*; also all the varieties in the *ornamental department*, both deciduous and evergreen, including all the new and rare *Conifers*, *Weeping Trees* and *Shrubs*, as well as a full stock of all the leading articles to be had in the trade.

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A large quantity of Osage Orange and Buckthorn plants, for hedge and screen purposes.

Dealers and planters of trees on a large scale, dealt with on the most liberal terms.

Newburgh, March 1, 1856—weow4tm2t

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CONSISTING of the best standard varieties, *whose genuineness has been proved in all cases*, are offered for sale by the subscriber. Careful selections will be made when desired, embracing a suitable proportion of the best sorts, so as to afford a regular succession of the finest fruit, at the following prices, viz:

Apples,........................	20	cents	each.
Peach, 2 and 3 years,............	20	"	"
Cherry, " "	38	"	"
Plum, " "	50	"	"
Pears, Dwarf, 2 and 3 years, ...	38	"	"
" Standard, " "	50	"	"

Extra large trees will be at higher prices.

Ornamental trees, evergreens, shrubs, roses, &c., of carefully selected and hardy sorts.

Trees securely packed for any distance.

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mar 1—w6tm2t Macedon, Wayne Co., N. Y.

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THE subscribers, having the exclusive right to all the night-soil emptied from the sinks and privies of New-York City, for five years—and there being more than they wish to use themselves, they are prepared to furnish to Farmers at their landings up any river, creek, or bay, where vessels can come, the *crude night-soil*, just as received from the scavengers, and empty it into carts, or furnished tight tubs, in which it can be carried on to the land—for from 10 to 18 cts. *per bushel*, according to distance and circumstances, or persons sending their own vessels will be loaded at the company's wharves.

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THE COUNTRY GENTLEMAN—THE CULTIVATOR, AND THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS—*Published at Albany, N. Y., by* LUTHER TUCKER & SON.

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THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS. The two Nos. issued for 1855 and 1856, contain more than 250 engravings of buildings, animals trees, fruits, &c., &c. Price 25 cents each—*sent post paid by mail.*

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. IV. ALBANY, APRIL, 1856. No. IV.

Turnips and other Root Crops.

It is generally known that turnips and other root crops are cultivated to a much greater extent in Great Britain than in the United States. Of the extent to which the various root crops are cultivated, and of the proportion between these and the various grain crops, any one may inform himself *accurately* by a comparison of the following statistics, which we select from the returns made to Parliament for the year 1854. Of 37,324,915 acres in the several counties of England and Wales, 12,441,776 acres were under tillage, and 15,212,203 under grass. Of the 12,441,776 acres under tillage there were in

	Acres.		*Acres.*
Wheat,	3,807,846	Turnips,	2,267,200
Barley,	2,667,776	Mangolds,	177,153
Oats,	1,302,782	Carrots,	12,638
Rye,	72,721	Potatoes,	192,287
Beans and peas,	673,188	Vetches,	218,551

According to the U. S. Census of 1850, there were of improved lands, 113,032,614 acres; of which there were in

	Acres		*Acres.*
Wheat,	11,000,000	Irish Potatoes,	1,000,000
Oats,	7,500,000	Sweet Potatoes,	750,000
Cotton,	5,000,000	Peas and beans,	1,000,000
Rye,	1,200,000	Buckwheat,	600,000
Barley,	300,000	Indian corn,	31,000,000

As no other root crops are reported in the U. S. Census, except potatoes, it seems a fair inference from this fact, not that there are none else cultivated, but that the number of acres under turnips and other roots was so small as not to be worth reporting, or that no place was provided in the schedules used by the enumerators on account of the small extent of land generally supposed to be devoted to these crops.

Of various facts and inferences furnished by, or deducible from the items above given from the agricultural statistics of the two countries, we think that the contrast between them in the matter of root cultivation is deserving of attention, perhaps more than any other. While England and Wales devote nearly two-thirds as many acres to raising turnips alone as they do to wheat-raising, the number of acres devoted to the latter purpose in the whole of the United States is too inconsiderable to call for any returns, or to be named along with about thirty other farm products for which separate columns were provided in the Census schedules. This striking disproportion between the two countries in turnip and root culture is doubtless owing to certain peculiarities in the circumstances, social condition, and climate of the two countries respectively; among the more prominent of which are the more exhausted condition of the long cultivated lands of England in comparison with our almost virgin soils, and the opportunity here presented of going to new settlements when the old begin to be less productive;—the greater amount of help which can be had in England, and the lower wages at which help can be hired;—and, to name no more at present, the greater severity of our winters in the Northern, Middle and Western States, rendering it much more troublesome, not only to preserve root crops from injury, but also to put and keep them in a condition for feeding out with any degree of convenience. But though these and other causes of a like nature may go far in accounting for the wonderful disproportion which we find existing, still it would be much less than it is were the farmers of this country to become *thoroughly* convinced of the *reality* of the many advantages which they might secure by a more extensive cultivation of turnips and other roots. To produce a conviction of this kind sufficiently *thorough* to lead to a more extended cultivation of turnip and other root crops, *trials* of them must be made, though only on a small scale at first, as the knowledge or convictions which we gain in this way make the deepest and most influential impression. If every reader of this who is not *thoroughly* convinced of the advantages of this crop, would inform himself well in regard to the best modes of cultivating it, of storing the roots, and of feeding them out, and would then raise enough to admit of his whole stock having a moderate quantity every day during a portion or the whole of the winter, the cultivation of turnips and roots would, unquestionably, become more generally and more extensively pursued than it has hitherto been. Were a mere enumeration and presentation of the advantages which may be justly claimed on behalf of this branch of husbandry, and which may be secured by adopting it in practice, sufficient of themselves to produce a *thorough* and *operative* conviction, without such personal and experimental trials as we have mentioned, then enough has been already done in this way to bring about a great change in this branch of farming, as may be seen by a reference to the columns of our own and many other agricultural journals. The advantages of turnip and other root crops may be seen in a *brief* and *comprehensive* summary of them which appeared in an article under the title of "Reasons for Growing Ruta Bagas," in the issue of *The Country Gentleman*, of Dec. 6, 1855, and in the Jan. 1856, No. of *The Cultivator*.

To secure, in the most economical and appropriate way, a regular

SUPPLY OF ROOTS FOR A WHOLE WINTER,

Several kinds should be raised. The common white turnip cannot be kept in good condition much beyond the end of December or beginning of January. A calculation should therefore be made as to the amount likely to be needed until about the first of January, at the rate of from a peck to half a bushel each per day for cows and cattle, and a proportionately less quantity for sheep; and enough of land be sown with some variety of the common white turnip to secure a supply for the period just named. As an average crop of white turnips ranges from 600 to 1,000 bushels per acre, a calculation can be made on this basis, the yield being likely to correspond in quantity to the condition of the soil and the amount of care and labor which can be spared for the cultivation of the crop. For the supply of roots for the remainder of the winter, ruta bagas alone will answer, or what would be better still, there may be ruta bagas, mangolds, carrots, parsnips, sugar beets, in almost any proportion. Any of these, if well stored, will keep in good condition as long as roots may be wanted. Were nutritiveness alone regarded, ruta bagas or some other of the roots last named, might be used during the whole of the winter season. But, though white turnips contain less nutritive matter, this is counterbalanced by their requiring less manure or a less rich soil, or, in other words, by their leaving the soil with a greater supply of ammonia for the wheat or other crop, requiring ammoniacal supplies, which may follow on the same land. Another advantage of the white turnip crop is that it requires a shorter season to bring it to maturity than any of the other roots. It may be sown as late as August, or after wheat, peas, early potatoes or other early crops have been removed from the land upon which it is to be raised. And still further, as a recommendation of this crop, it may be raised in sufficient quantity for the supply of stock on the majority of farms by sowing the seed, when the weather is showery or the soil is not suffering from drouth, between the rows of Indian corn. The corn, we believe, will suffer no injury; and if more turnips are thus raised than are likely to be needed until Jan., they may be left unharvested, and sheep turned in on them alte in the fall.

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Proposed Rotation of Crops.

Messrs. Editors—The undersigned, a subscriber to your journal, and a friend, are beginners in farming, and occupy two farms on Long Island.

Large quantities of manure are used, without such a return, either in the crops or in the improvement of the land, as ought to be derived from the investment of capital required.

The soil of the two farms is what is called a clayey loam, containing about 40 per cent of sand, and the rotations upon them hitherto, have been as follows: First year, Indian corn—second, oats—third, wheat, and put down to grass seed.

The corn is manured in the hill. The oats, if manured at all, are either guanoed or boned. The land is then more or less well dunged for wheat, and the quantity and length of duration of the grass depends upon the quantity of manure put on for wheat when the grass is laid down.

Potatoes and turnips do not enter the rotation as field crops. The yield per acre, according to our observation, is about as follows: Indian corn, 50 bushels ears—wheat, 12 to 15 bushels—rye, 10 to 12½—oats, 25 to 30—grass about 1 ton, average.

We wish to devise a rotation which shall be an improvement on the above course, and although we feel confident of being able to do so, we are not sure that the following course which we propose, is the best one:

1st year—Indian corn dunged in the hill, eight two-horse loads of yard manure to the acre, hills four feet apart each way—4 seeds in the hill; guanoed at the second hoeing, 200 lbs. to the acre.

2d year—potatoes followed by turnips, both in drills, 30 inches apart; seed 12 inches apart in the drills; manured with barn-yard manure, 25 loads to the acre broadcast, and guanoed in the drills, 250 lbs. per acre—followed by wheat in the fall—ashed, 300 bushels per acre—2 bushels seed.

3d year—wheat or rye, followed by turnips on the stubble. The wheat to be top-dressed in the spring with 200 lbs. Peruvian guano per acre, harrowed in and rolled; the turnips to be topped on the ground and tops plowed in, in the fall.

4th year—oats, with clover and timothy seed, 15 bushels bone per acre.

5, 6, 7 and 8—grass.

There are no green crops to turn under provided for, and we do not see how to obtain one unless by sowing red clover between the corn rows after the last hoeing, in which case the guano should be sowed broadcast between the rows. Buckwheat might take the place of turnips in the 2d year; or follow the wheat in the 3d year, but our stock require root crops.

In conclusion, we would receive with pleasure any remarks from yourself or any of your correspondents. Improvement. *Huntington, L. I.*

Remarks—1st year. Corn, after grass, forms a good beginning for the rotation.

2d and 3d years. The early potatoes, followed by turnips, cannot precede wheat, as the turnips cannot come off in time. We would propose that the potatoes occupy a portion of the corn field the first year, and that wheat be sowed immediately after the early removal of the corn; or what would probably be better if the soil will admit, that barley and peas follow the corn, and that wheat be sowed after these for the third year. Turnips may occupy the same field with the corn and potatoes, provided that peas and barley follow the second year, but they cannot be removed in time for sowing wheat.

4. So far as our observations have extended, oats is a hard crop for a farm rotation, and ought to be confined to some moist and strong land, otherwise exclusively kept in grass. Some good farmers prefer buying oats to admitting the crop to their *wheat* lands.

We would propose a course something like the following:—1st year, wheat after clover and timothy; 2, Corn, potatoes, and turnips, with all the manure of this year; 3, Peas, beans, and barley; 4, Wheat, seeded *heavily* with clover and timothy; 5, Clover, pastured for one, two or three years. Or, the following:—1, Corn and roots, with all the manure; 2, Barley or peas; 3, Wheat; 4, Clover and grass, for one, two or three years. Or, the barley and peas may be thrown out, and the course be, corn wheat, and clover.

Clover will rarely take among corn, as proposed, on account of the mid-summer heat.

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☞ We are indebted to H. G. Foote, Esq., Ogdensdurgh, for a copy of his Report, as Delegate from the New-York State Ag. Society, to the Provincial Fair of Canada East, and also for a copy of the Address delivered before the St. Lawrence Ag. Society, at its annual Fair at Canton, in Sept last, by Hon. S. A. Foote of Geneva, from which we hope to find room for some extracts hereafter.

"Signs of Progress."

During a few years past we have been accustomed to see the signs of progress in the great cause of Agriculture, annually reported in *The Working Farmer.* And we have turned from these reports with some quiet wonder that so many and such inestimable improvements *should* have followed the establishment of that paper. *It* would lead the world to infer, indeed, that the agricultural progress which this century has undoubtedly seen, from subsoiling and draining to rotation in crops, was, all and wholly, attributable to the impetus which its editor had imparted to the public mind,—the first step being unquestionably due to his supposed discovery of the wondrous virtue of "analyses of soils," especially when accompanied by a $25 "consulting fee," a second as certainly to the use of his "Superphosphate of Lime," a third to that of the "Improved" ditto ditto, a fourth to the "Nitrogenized," and perhaps a fifth, though we confess he *is* silent on this point, to his recent *invention* of Chilian Guano. We have not deemed it necessary to disturb the self-complacency of the manufacturer of this last named "article of commerce," by any allusion to these modest pretensions; but when so respectable a journal as *The Homestead* is betrayed into somewhat similar errors, notice and correction of its statements seems to be proper and necessary. An article on the subject at our head, in the number of that paper, for Feb. 14th, contains the following paragraph:

"It is hardly five years since a scientific agricultural journal was established, and very little was said about the application of chemistry to agriculture in any of the older journals previous to this time. The staple of their contents was made up of the old style farming, with now and then the crude experiments of some adventurous farmer, who felt the difficulties of the ways of the grandfathers, without any clear vision of a more excellent way. Occasionally a new tool, or a new crop broke the monotony of farm life, and excited the prejudices, and waked up the wit of the plowboys. Book-farming was in almost universal contempt, and not one farmer in ten took an agricultural paper. The papers then in existence, small and feeble as they were, were far in advance of public sentiment, and were poorly supported."

The writer of the above displays an ignorance of his subject altogether inexcusable even in one who attempts merely to furnish the data for a "history of agricultural reform in this country." He utterly ignores the existence and writings of such men, among the dead, as BUEL, GAYLORD, COLMAN, NORTON, and others,—men, who, as sound practical, aye, and scientific writers on agriculture, are unequalled by any who have entered the walks of its literature within the last "five years." And the living are treated with no less discourtesy than the dead. The writer seems to be entirely unaware of the labors of EDMUND RUFFIN, J. J. THOMAS, the brothers ALLEN, SANFORD HOWARD, Dr. LEE, J. A. WIGHT, Dr. HOLMES, M. B. BATEHAM, G. B. SMITH, and the hosts of able correspondents for the several papers with which they have been connected, all of whom have aided untiringly in the cause of agricultural improvement *during from fifteen to twenty-five years.* Who and where are the writers, within the last "five years," to throw these men so entirely into the shade? Will *The Homestead* please name them?

To what "scientific" journal or journals, established within this period, the extract alludes, we cannot imagine. They have not fallen under our eye. They certainly cannot have attracted the attention their peculiar merits would deserve. Indeed it may be questioned whether the constant additions, of late years, to the ranks of the agricultural press, have not had their customary effect, to dilute its value, and to lower its standard. They could once appeal to the patriotism of our most distinguished agriculturists for efforts to increase the number of thinking and reading farmers—now, amid the clamors of rival publishers, and the pretensions of unscrupulous or unqualified writers, the true friend of enlightened, progressive and scientific agriculture must often hesitate and stand aloof.

In regard to agricultural journals previous to 1850, we are told that "the staple of their contents was made up of the old style farming, with now and then the crude experiments of some adventurous farmer," &c. So far from this being the case, at least several of them were, on the contrary, filled to the full with the writings of the most sagacious and able men this country has yet produced. In proof of this, it is only necessary to refer to the old volumes of the *Virginia Farmer's Register*, the *American Farmer*, the *New-England Farmer*, the *Genesee Farmer*, and *The Cultivator*—all in existence twenty years ago. As we happen to have some extra copies of the last named, for 1840-1-2 and 3, we shall be glad to send copies of them to *The Homestead*, if it will take the trouble to look them over, and then point out to us any journal established within the last five years which will compare with them in "the staple of their contents." And we may add, here, that ten or fifteen years ago, it was the *objection* to *The Cultivator* on the part of all who did not read, and not a few who did, that it was *too* scientific, too largely devoted to a new-style farming, and far too irreverential toward "the ways of the grandfathers." If within "five years since," we have not thought best to go hand in hand with some pseudo-devotees of science, whose promises to the farmer have been so bright, and whose discoveries so striking, we have refrained from doing so, in the same spirit in which we aided in bearing the brunt of the conflict, when the popularity of high sounding words and specious theories was not so general as now. This course, perhaps at the present time as liable to the charge of conservatism as it was then to exactly the opposite of it, we believe at least to possess the merit of consistency with itself, and, we hope, with the best interests of our farming population.

Before the happy dawn of 1850, it happened that "occasionally a new tool or a new crop broke the monotony of farm life"! We are glad to be able to inform the *Homestead* that it will find most of the improved implements and machines which have done so much to advance the interests of agriculture, carefully figured and described in the volumes of *The Cultivator* before the year specified; and not only this, but we do not now remember that any *new invention* of decided importance to the farmer has made its appearance during the five years just concluded. It is very true that some valuable improvements have been effected, and the demand for better tools has doubtless very much increased with the growth of the country and the advance of intelligence among farmers as well as other classes.

But in those benighted days "book-farming was in almost universal contempt." If we may judge by reports from those who have sought to extend the circulation of our journals, even in this enlightened year of grace, 1856, the darkness has not yet entirely lifted off from the face of the land. And we have some knowledge, also, of what was the state of things ten years or more ago. Before 1850, over 425,000 yearly volumes of our own *Genesee Farmer* and of *The Cul-*

tivator, had gone abroad through the land, to say nothing of the circulation of their cotemporaries. "Small and feeble" though *they* were, we fear our Connecticut friend's ideas of strength and permanence are not destined to an early realization, if he considers them "poorly supported."

In conclusion, we will say that these remarks have been made in no captious spirit toward our cotemporary, but rather in the belief that the subject is full of suggestions for all who hold dear the interests of the farmer. None can rejoice more heartily in any signs of his progress than we; and in no way perhaps is it more decidedly manifested than in the greatly increased demand for agricultural literature, which now undoubtedly exists, and which *should* continue to go on, at least in an equal ratio with the increase of our population. Indeed we are quite as confident in the belief that this progress must be sure and lasting, as we are in the conviction that from the nature of things it can only be attained step by step, and in the testimony of our own observation that the past five years have certainly seen nothing more accomplished than might have been fairly predicted from the condition of agriculture at their commencement. Such being the case, a little better acquaintance with what has been done before, would be at least appropriate before pronouncing on them as forming so decided and remarkable an epoch.

Will the Osier Willow Pay?

Messrs. Eds.—Seeing some remarks in the Country Gentleman of 7th inst., asking information as to amount of Osier Willow imported into this country, I will give you my experience in their cultivation. In the spring of 1854, seeing a communication in the Horticulturist, by C. Downing, on the Cultivation of the Osier or Basket Willow, and having some land adapted to their growth, I was induced to purchase some fifteen thousand cuttings, to try the experiment, and become convinced by facts, as all agricultural men ought to be, and not be carried away by the assertions of this or that man as to the goodness of a thing. I planted my willows, and although the drouth of 1854 killed many—yet in the fall a couple of Germans paid me a visit, and offered me $25 for the crop. This was the first year's crop, and about an acre was planted. They also offered Mr. Van Dyck of Kinderhook, for one quarter acre of second year's growth, $25, and cut and peel them. I declined their offer, and concluded to keep my crop for cuttings for the next year. But I was not convinced yet that it would "pay," and I concluded to take a trip to New-York, and see what market could be had for the raw materials. I there became convinced that the statement of Downing and others that from three to five million dollars worth of the raw material was imported, was incorrect. It has probably arisen from the fact that large quantities of French and German ware, composed wholly or in part of willow, are imported at large profit into this country. Any one, after visiting the stores of the dealers in this ware, will say at once that the amount is not overstated. Cannot this ware be manufactured here? I think it can Much of the labor can be done by children and girls, which will reduce the cost materially. I visited some of the manufacturers of basket cradles and other ware. I was offered eight cents per pound for my crop after peeling and fitting for market. From this I came to the conclusion that at an average yield of two to three tons per acre, it was the best crop I could raise—even at one half the price offered. However I would not advise a man to go into the cultivation of the willow without he has land adapted to their growth—rich moist land, that will not grow a winter crop, and soils too wet to grow a good crop of Timothy These lands, at an outlay of five to ten dollars for preparing the ground, I think can be made to pay a far better profit than any crop that can be raised.

But some of your readers will ask—Will present prices be sustained? I answer, I do not think they will, but even at five cents per lb. it is a profitable crop with a yield of two tons per acre.

I have come to the conclusion that the judicious cultivation of the willow is as profitable, and more so, than any crop we can raise, and when we can grow it on land that will not grow any other crop, I think your readers will say at once it will pay—at any rate I shall try it to the end. John H. Corning. *Valatie, N. Y.*

The Chinese Yam—*Dioscorea batatas.*

We have received a communication from Rev. C. E. Goodrich of Utica, written in July last, but which only recently came to our hands, in which Mr. G. reviews, at considerable length, the statements then published in this country, in relation to the *Dioscorea batatas*. Had the paper reached us at the time it was written, we should have published it at length, but with the pressure upon our columns at this season, we are compelled to content ourselves by stating that Mr. G. contends, and shows as we think conclusively, that the Dioscorea, being a tropical plant, cannot be expected to succeed in the northern portions of the United States, although it may prove useful in the Southern States. We add, however, a letter lately received from Mr. G. from which it will be seen that the later publications on this subject; have not changed his views as to the adaptation of this plant to the northern states:

Since transmitting you my article on the Dioscorea, I have seen, to-day, for the first time, two advertisements for the sale of this new plant, one of which is attended with remarks on its natural history and tested culture in Europe and the United States. I have also to-day, for the first time, read the article, on this plant, in the Report of the Commissioner of Patents for 1854, p. 165. In this last, it is said to have been imported from Shanghai in China, and to have been cultivated with especial success at Nanking. These cities are in North Lat. 32° and 33°, which are on the same parallel with Savannah in the state of Georgia. A variety is there said to grow at Hoai-King, which is used for medicinal purposes. This last place is in the interior, in Lat. 35°, near the great bend of the river Hoang-Ho. All these statements go to sustain the doctrine of the review, viz., that the Dioscorea is substantially a tropical plant, and that theoretically therefore, in its adaptation to a northern climate, it must rank with the Melon, Sweet Potato, Tomato, &c., and if so, that it can never be depended on, in a northern climate, to produce food for the million, however, with wise and expensive culture, it may become a pleasant luxury. The belt of country, in the U. States, included between about 38° and 48°, is the great region for the true potato,—the Solanum tuberosum; yet this whole region nearly, lies north of China Proper, as only an inconsiderable portion of that country extends north of the line of 38°. The same remark applies to the west of Japan.

My distrust of this new plant, as a substitute for the potato, is, in the preceding article, based purely on considerations of climate. I wrote in ignorance of all the actualities of recent experience in Europe and America. After reading the accounts referred to under date of to-day, I am not disposed to alter my judgment.

Believe me, Messrs. Editors, there is no knack of agriculture, and no curious secret power of nature to be availed of by cultivators, by means of which large and reliable crops of tropicals can be realized in such a climate as this, with the exception of Indian corn. The potato, as is well known, can hardly be called tropical, being a mountain plant. As you move from the line of 40° south, especially on the sea-board, the prospect brightens, and hence I should not be surprised if south of 38°, the new stranger should find a congenial home, whence its annual crops of tubers may be exported to regions farther north, as is now done with the sweet potato. C. E. Goodrich.

To the above, we add an extract from a private letter just received from a distinguished naturalist, from which it will be seen that the quality of this newly introduced vegetable is not such as to render its acclimation of very great importance:

"I see there is much said in the papers just now about the *Chinese potato;* and that some editors have the good sense to regard it as another Rohan and Morus multicaulis speculation. They are undoubtedly right in thus regarding it. A few weeks since, in conversation with Rev. M. S. Culbertson, who has just returned from a ten years residence in China, I was informed that what is there called the potato is scarcely entitled to such a designation, it being so unlike what we understand by that name. It is an inferior unpalatable article, which is never ate except by some of the very poorest classes. Foreign residents regard it as a great treat when they can sometimes obtain from the ships which arrive, a few of the potatoes of this country; and these they are now trying to cultivate in their gardens there."

Management of Milch Cows.

We hope the following queries will attract the attention of our dairy farmers, and that they will furnish us the results of their experience and observation on the points indicated:

Messrs L. Tucker & Son—If you or any of your correspondents can satisfactorily answer the following queries, you will oblige one, and perhaps many read-

1st. Is it best to milk a cow that is giving milk, up to the time of calving? There appears to be two theories on this subject. One that it *is best* to do so, and that, even if the cow should go entirely dry, milking at the regular intervals of morning and evening, will cause her milk to return. This is the theory of some of our best dairymen in this county, and by following it up closely I have not had a dry cow (out of four that I keep,) for three years; although one of them was twice dry, before that time, once for two weeks, and once four weeks. Neither does any one of them rise higher than the "fourth order, large size, curveline cow," of Guenon classification. One of them, that has never been dry since her first calf, fills the description of the 6th order, size and class as above, which would indicate *her* period of going dry as 7 months. The other theory is, that they should be allowed to go dry from six weeks to three months—1st. Because it injures the foetus. (To this I will answer that I never saw better or more healthy calves than mine were.) And 2d, that the cows do not do so well afterwards. In Co. Gent. for Dec. 27, 1855, Skinner's introductory remarks to Guenon's book, &c. (I will not occupy your space with the names of the authors from whom I may quote—I can refer to them if necessary.)

Perhaps I may as well mention that I have a cow 5 years old, very heavy with her fourth calf, that gave promise with her *first* calf, of being a very good cow; but is no better at 5 years with her third, than she was at 3 years with her first calf. Do you think that the constant milking can be the cause? She has always appeared to be in good health, and would be selected by nineteen out of twenty men, as the best out of eight cows that were together, when she is the worst in the lot.

Query 2d. Is it best to feed cows before, at the time of, or after milking? Some say, before, by all means! as thus the system is warmed up, and the lacteal secretion called into action. Others, after, by all means! as the process of digestion interferes with the lacteal secretion. To favor this theory, one of my cows will not let down a single quart of milk while eating, or for some time after, even when giving four gallons per day. Others, again, say "it is *absolutely necessary* that a cow should be fed while milking," as her attention is then diverted from the milking, causing her to let her milk down more freely.

3d. Is it best to milk at regular intervals of twelve hours, or to milk regularly half an hour after sunrise, and at sundown, all the year round? Both theories have advocates.

4th. Some writers say, "Milk a cow *clean* as fast as you can; do *not* subject her to long stripping, and do not return to her a second time." Others, "Milk as fast as you can, and when you have milked the last cow, return to the first and *drip* her clean, stripping a long time." Which is best?

If any one can answer the above queries, from actual experience or observation, I will be much obliged to him, as I have some heifers that I would like to "train in the way they should go," and also some young cows that I would like to treat in the most *profitable* manner.

I have experimented some on the above subjects, but for fear of injuring my young cows, did not carry them far enough to satisfy myself.

I also experimented for three or four years, on the subject of salting cows, both summer and winter, in intervals of from one to four weeks. I found my cows, *invariably*, to lose from one pint to two quarts, according to the flow of milk when salted. I could discover no *difference, whatever*, in their health, thrift or appearance, whether salted or not; but as they eat rough food much better when well salted, and as they are fond of it, I gratify their appetite; although I do not think it will pay on the score of profit.

Can there be instructions given, *plain* enough to enable a farmer to spay his own cows, in a neighborhood where there is no professional spayer or veterinary surgeon?

Answer as soon as possible and oblige A Reader.
Connersville, Pa.

Corn and Ruta Baga Together.

Messrs. Editors—Reading in the Cultivator, Reasons for Growing Ruta Bagas, induces me to state the manner that ruta bagas are cultivated in this region of country. We plant them with our corn. First draw out our manure in the spring on sward land, spread and plow under—plow deep, and give the land a thorough harrowing. Mark with a marker, 3 feet apart, (or some more than that,)—take two parts wood ashes, one part plaster, and put your seed into it; give it a thorough mixing up with a shovel; drop a good handful in the hill, and plant your corn. The turnips will come up thrifty. The corn can be hoed nearly as quick the first time; some care must be taken not to cover or cut up the turnips. The next hoeing or hilling, they are out of the way, and should be reduced down to one turnip in the hill. If your corn fails, you are sure of a turnip crop. I have tried it successfully. One turnip in the hill does not injure the corn. Hundreds of bushels can be raised in this way, paying all the expense of labor on the corn. Every farmer who plants from 5 to 10 acres of corn, can raise from 500 to a 1000 bushels of turnips in this manner, which is almost a clear gain.

Cut up the corn as soon as it is fit, five rows together; set it around a hill, and bind with two bands. Your turnips then have a chance to grow, and can stand until very late in the fall. Then take a common hoe and chop off the tops; then haul the turnips partially out of the ground with the side of the hoe, cut off the tap root, and give them a toss into rows, which clears them from the dirt. You can then pass along with your cart and load them for the cellar. J. F. *Whitesides Corners, N. Y.*

Blackberries and Raspberries.

Please inform me how to make the seeds of the black raspberry and the blackberry, both the high and the trailing kinds, germinate. I have sown the seeds of all, but none of them ever came up. I wish to try to improve these berries on the Van Mons plan of rapid reproduction. Most of our indigenous fruits are shamefully neglected. Were I twenty years younger, I would immediately commence experimenting on the Van Mons plan—(the true plan, I think, for permanent improvement in fruits and nuts) with the best varieties of our fine flavored hickory nuts, hazlenuts, chestnuts and butternuts, and the rank black walnut should not be neglected. J. W. Neal. *Alexander, N. Y.*

Raspberry and blackberry seed require very much the same treatment as mountain ash seeds—that is, preservation of the natural moisture by immersion from the fruit in moist sand, earth, or peat, and exposure to the freezing of winter. Small seeds, as the raspberry and mountain ash, must be buried very shallow, in order to germinate—not over one half an inch at most, and the moisture of the fine earth with which they are covered must be preserved by proper shading.

As this is an important and interesting subject, we applied to Dr. Brinckle of Philadelphia, who has had so much experience as well as success in raising new varieties, and have been favored with the following answer:

"I have no experience in the germination of seed of our indigenous black raspberry. In regard to the blackberry, I planted seed several seasons without obtaining from them a single plant. In the summer of 1854, as soon as the berries were ripe, I planted a few seeds of the Boston blackberry, of the Lawton, and of the parsley-leaved, in pots which were left in the open air all winter. Many seed of each of these varieties germinated in the spring of 1855, and continued to do well. Out of ten or twelve seedlings of the parsley-leaved variety, only two retained the characteristic parsley or rather fern-leaf of the maternal parent; the others had the ordinary blackberry leaf. As a general and almost invariable rule, Blackberry seed, even when planted immediately after the maturity of the berry, will not germinate until the ensuing spring. But, in one or two instances, I have known germination to take place the same season the berry ripened; this however is exceedingly rare. The best mode to secure the germination of blackberry and raspberry seed is, probably, to plant the seed as soon as the fruit is ripe; taking care not to allow the seed, in summer and autumn, to have moisture enough to rot them."

The Strawberry Potato.

Messrs. Editors—I received from Mr. G. W. Durant of Rensselaerville, last spring, a half bushel of potatoes, which he calls the White Strawberry. I cut them up into very small pieces, and planted them in 8 rows about 24 rods long, right in the middle of a field of Mercers, and they were treated in every respect like their neighbors. I gathered thirty bushels from this half bushel, of as beautiful smooth tubers as one would wish to see. Their eating properties are unsurpassed—yes, I may say unequalled by any potatoes I have ever eaten. They are freer from disease than my Mercers, and yield far better. I think them a valuable acquisition and well worthy of dissemination. C. N. Brown. *Orient, L. I.*

Experiments with Oats.

Poland Oats.—I have grown the white Poland oats for four or five years, and find them good producers on good soils. The only fault found with them, is that they are liable to lodge on some soils, when nearly ripe, owing to the weight of grain. This can in a measure be remedied by cutting as soon as the straw turns yellow below the head. The White Poland, or more correctly the Friezeland or Dutch, has a large white grain, mostly double,—the large one awned—the awns more or less twisted. This oat requires a rich, warm soil. It is a week or ten days earlier than the common white. The grain weighs from 38 to 44 pounds per bushel. The yield last year was, in several instances, from 70 to 100 bushels per acre. One field of 10 acres produced 700 bushels as measured from the thresher—another, 98 bushels per acre. I received a line from a farmer, saying that from three bushels, sowed on one acre and thirty-six rods, he got 118 bushels, and took the first premium. With care in saving seed, and on good soils, I think it will not deteriorate.

White Siberian, or a variety by that name, has recently been introduced in this section, and proves to be extremely productive. It will grow and produce large crops on light soils. The grains are white, and double and triple. The grains are not awned, and have a thin husk. The weight is about 32 pounds per bushel. Heads have been selected this season, measuring 20 inches in length, and bearing over 300 grains each. This oat will prove a decided favorite in many sections.

Black Tartarian.—The Improved Black Tartarian originated from a single head found growing among other oats. It was selected from its apparent superiority, and has proved a valuable acquisition. The grains are large and of a glossy black, except near the flower end, which is brighter colored. The grains are double. The large ones mostly awned. These oats are large and plump, weighing 36 or more pounds per bushel. They are well adapted to rich, heavy soils. The yield per acre is good. The straw is stiff, and they are not liable to lodge.

Black Oats of France, (Avoin Noire de Brie.)—These are beautiful black oats, resembling the Friezeland or Dutch. They are said to weigh from 40 to 48 pounds per bushel in France. The grains are double—the large ones awned—the awns frequently twisted. The grains are large and plump, and of a dark glossy color except the flower end, which is quite light. I think from what I have tried, that they will prove a superior oat. I suppose from the size of the grain, and the number on each head, that they will produce well. They ripen early. The seeds of this oat were sent from France, and distributed by the Patent Office.

California Oats.—I sowed two varieties of California oats, but owing to the season or soil, they did not do well. They were white, and the straw of one variety was 7 or 8 feet long. J. A. Clark. *Marion, Wayne Co., N. Y.*

Cure for Warts on Horses.

Messrs. Editors—I saw in one of your late numbers, a recipe for curing warts on horses. I had a valuable horse with a wart on the inside of the thigh, as large as a man's thumb, three-fourths of an inch long. I applied wafers to it several times. It removed it entirely in a few weeks, without any annoyance to the animal. James Fuller. *Whitesides Corners, N. Y.*

Subdivisions of Farms.

David Dickson, of Winfield, Lake Co., Ia., has furnished us with a plan of his farm as it now is, with a request for a proposed subdivision adapted to a suitable rotation. This plan is represented by fig. 1, the land being all cleared, (the woodland being a mile distant,) and all sandy or clayey loam, except those portions marked as muck and marsh. B is the garden, and C the house, and it is intended to build a barn north of the house, in order to secure a side-hill locality. The south side of the house would be a more central place for the barn, but the ground is unsuitable. The whole farm is rolling land, but has a general and gradual descent from the south-west to the north-east—and no part is too steep to plow. The whole contains about 120 acres.

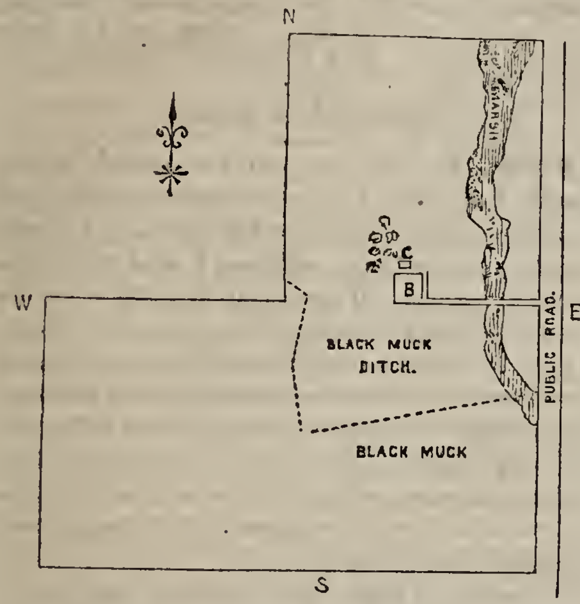

Fig. 1—Farm, as it now is.

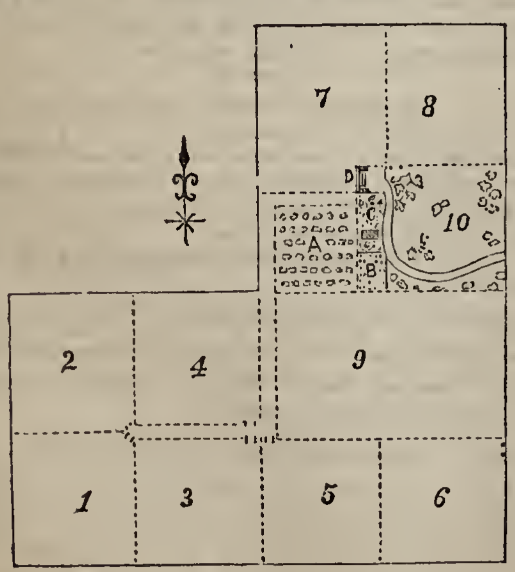

Fig. 2—Farm, with proposed subdivisions.

In figure 2, we have given the plan which we propose for this farm. A more accurate knowledge of the surface might enable us to improve this plan, as we may possibly have run the lane which leads to the several fields over hills, which might be avoided by slight flextures, or by altering its position.

There are ten fields besides the orchard, containing about eleven acres each. If this is more than can be fenced at once, Nos. 1 and 2, may be thrown into one field, and the same may be done with 5 and 6, and with 7 and 8, leaving only seven fields. No. 10, being intersected by the marsh, (which now affords heavy crops of wild hay,) and in front of the house, we have concluded to throw several acres into pasture, to plant a few trees to give it something of a park appearance, and to give a curve to the entrance road, to avoid the stiffness of straight lines. If thought best, less breadth may be given to this field, leaving it still wide enough to embrace the curved entrance. The grass is to be kept short by pasturing animals.

The soil west of the house being more sandy, we propose to occupy as an orchard. No. 7 may also be used for this purpose, if desired.

The barn is easily accessible, and, fronting the east, the yard is protected from west winds.

Fields number 1, 2, 3, 4, 5, 6 and 7, if we understand the description of the land, will be dry land, and capable of entering any proposed rotation. No 8 is largely marsh, and No 9 low black muck. The former may therefore be mostly kept as meadow or pasture, and the latter for corn and turnips, or pasture and meadow. These low portions will need a large portion of timothy for seeding.

Fields Nos. 7 and 8, are entered from the barnyard; 9, from the public road, or from the lane back of the orchard, or both; and No. 6, from the road. All the others are accessible from the lane.

The following rotations may be adopted, or varied from according to circumstances·

Three-course system—1st year, corn, potatoes, carrots and ruta bagas, with all the manure—2d, wheat—3d, clover, one or more years.

Four-course system—1st, corn and roots—2d, barley and peas—3d, wheat—4th, clover, one or more years. The seven arable fields will admit four years of grass in this course If more wheat is desired in this course, a crop of wheat may commence the rotation, and precede the corn.

Another Precocious Pullet.

Messrs. Editors—I noticed in the Country Gentleman, an account of a precocious pullet, which commenced laying at four months old—sat, and hatched a litter of chickens by the first of November, she being then about six months old.

That "Blue Nose," and others, may know that we have as *smart* pullets, to say nothing about anything else, down in the old Bay State as in Her Majesty's Dominions, I will relate the following fact. I had a pullet, a cross between the Black Bantam and Black Spanish, which was hatched the 16th of March; she commenced laying the 20th of July, and laid twelve or thirteen eggs in as many successive days. She then sat, and hatched nine chickens on the 23d of August, and raised them all, being eight pullets and crower. She commenced laying again in December following, and continued to lay through the winter, with occasional intermission.

After having had experience with nearly all of the different varieties of fowls, I think I can safely say that I know of no kind, that, for early and constant laying, excel, or even equal, this cross of the Black Bantam and Black Spanish breeds. A Subscriber.
West Bridgewater, Mass.

Errors in Nurseries.

A great improvement has been made of late years in the character for accuracy, of nurseries generally throughout the country, but more especially of those of well known responsibility and established reputation. All intelligent and careful nurserymen have now connected with their establishments, specimen grounds, containing trees for proving the correctness of all the sorts cultivated. Twenty years ago, most of the nurseries were little else than a mass of blunders and confusion; it often happened that a collection of trees obtained from some of high repute, proved on bearing to be more than half untrue to names. Now we could name several, where purchasers may as a general rule get every thing they send for—errors being rare exceptions.

But there are still a large number of nurseries of a certain class, which remain quite as bad as ever—those more especially which have been established by persons who know very little or nothing of our best standard fruits—who never attend a pomological meeting or exhibition of fruits, nor keep up with the intelligence of the day—whose only object is to make money at all hazards—and whose only customers are those who are equally uninformed on these subjects, and who will always buy trees where they can procure them "cheapest." A correspondent in a remote part of western Pennsylvania, in speaking of the difficulties we have alluded to, remarks, "There are at least twenty nurseries within twenty miles of this place, but many of them cannot be relied upon; indeed, I do not know that any of them can. They are selling almost every variety of shape, color, and flavor of apples, by the name of some standard sort, not one of which corresponds with the description of the same apple given in your *Fruit Culturist*. For instance, they sell for Rhode Island Greening, an apple *striped with red!* much resembling the Rambo, but *smaller* and inferior every way. For Newtown Pippin, a small, yellow, knotty and scrubby apple, scarcely keeping till March—and so of the rest."

The remedy for these evils, is the dissemination of pomological knowledge, through associations, periodicals, and the cultivation and spread of the best sorts. Those who "cannot afford" to avail themselves of these sources of information, will of course continue to be imposed upon, to a much greater extent than the amount tus "*saved*."

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Feeding Salt and Ashes.

In the Cultivator for Jan. 1856, and in previous numbers, complaints are made that cattle have been afflicted last year with diarrhœa and bloody murrain, (red water;) that horses, cattle and sheep have been afflicted with slavering, and have been unusually thin in flesh and drooping; that the milk in cows was variable in quantity and quality. Such complaints are common in wet seasons, and on new and undrained wet lands in all seasons. All these troubles arise from the bad quality of the grasses or hay and the indigestion of them consequent thereon.

The only convenient remedy for these troubles consists in feeding salt and ashes to gramniverous animals throughout the year. For this purpose leached ashes should be used; and that for two reasons. One is, that the potash contained in unleached ashes, is so very caustic that it sometimes blisters the lips of sheep feeding upon such ashes; and the other reason is that gramniverous animals will not eat a sufficient quantity of them.

For the above purpose mix well together one part salt, with 3 or 4 or 5 parts of leached ashes; place them in a box covered over so as to exclude the rain, or in a water proof trough, to which they can have access at all times. H. J. Canfield. *Mahoning Co. Ohio, Feb.* 1856.

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Stretches in Sheep.

Messrs. Editors—In your last number of the Country Gentleman, I notice an inquiry by Mr. Craig of Indiana, about some marked diseases of sheep. The first complaint he mentions, I have never seen among sheep here. It may be attributable to the climate, or to some peculiarity of the grasses in his locality; but the second complaint he speaks of, is a disease known here by the name of *stretches*, and a formidable and difficult disease to contend with if suffered to run along without ckecking in its first attack. It is evidently a constipation of the bowels, which if not relieved in its first stages, causes a total stoppage, and the animal lingers and dies.

Prevention is better than remedy for any and all diseases. I formerly lost some very good sheep by this disease, but since keeping a supply of good coarse salt constantly by my flocks, with pure aqueduct water running in each yard, it is very seldom that a sheep is attacked with it. Whenever I see one showing the unmistakable symptoms, by standing with its forward feet pulling and its back ones pushing, as though its small intestines were contracting and slipping into each other, and the instinctive endeavors to draw them back to a natural condition, I immediately pour into its stomach one half gill of castor oil. If this does not give relief within 12 hours, I repeat the dose. But if given on the first indications of the attack the second dose will not be necessary. It is very important to apply the remedy as soon as possible; for after the disease has progressed until a dry, hard and black substance has formed in the alimentary passage, I very much doubt whether there is any remedy for it. J. W. Colburn. *Springfield, Vt., Feb.* 14.

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Fruit for Cold Regions.

Messrs. Editors—Please name ten or twelve varieties of apple, and about six of pear, for a climate far too cold for the peach, and where none but the smaller kinds of corn will ripen.

Which are the best apples for feeding? A. B. *Hobart, N. Y.*

Apples.—Red Astrachan, Sops of Wine, Early Joe, Gravenstein, Duchess of Oldenburgh, Porter, St. Lawrence, Fameuse, Ribston Pippin, Baldwin, Jonathan, Peck's Pleasant, Pomme Grise.

For feeding, probably the *Sawyer Sweeting*, commonly known in many places as the Northern Sweet, will prove the best and most valuable variety. Haskell Sweet and Autumnal Swaar are good autumn sorts and Danvers Sweet and Tallman Sweet are excellent winter sweet apples, in addition to the Sawyer.

Pears.—Osband's Summer, Beurre Giffard, for early varieties; Virgalieu and Flemish Beauty for autumn pears; and Lawrence and Winter Nelis for late sorts.

Successful Operation of Elgar's Wind Power.

Eds. of Country Gentlemen—In your paper of Jan. 31, there are several inquiries made by correspondents, in regard to wind mills, accompanied by some remarks of the editors, together with a request for further information on the subject from any persons who have made trial of wind power. As I have had some experience in that way, with an instrument which I believe is calculated to prove a public benefit, I feel disposed to do my part in recommending it to general notice, as there are strong indications of a wide demand for machinery to be impelled by wind power, provided an article can be obtained which shall combine the essential requisites. These are, simplicity of construction and perfect capacity for self-regulation. Hitherto as seems to me, and (I have examined the models in the Patent Office several times,) most of the machines that have been invented, are too complicated and have failed to solve the great problem of making the wind power *directly* its own governor. This object appears, however, to be fully accomplished in the machine I use, which was invented and patented by John Elgar, of Baltimore, Md., a diagram and description of which were inserted in your paper of the 6th of December last. I have had one in operation for about five months, to great satisfaction. After getting the springs adjusted, it was started, and has been in full working trim from that day to this, furnishing sufficient water for all purposes, house, kitchen and stock, without having to touch it for any purpose except to stop it when the reservoirs are full, or to start it when they want replenishing (which can be done by a child) and a few hours interruption caused by frost, owing to a part of the machinery not having been sufficiently protected from the rain.

As to durability—being made nearly all of iron, and the parts well adjusted, I can as yet see no wear in any part that will be likely to require much if any repairs for many years, if proper attention is paid to oiling it.

The mill was first put directly over the well, which is about 10 feet from the kitchen, but we found the free passage of the wind obstructed by the dwelling house, and had to change its location. It is now about 89 feet from the well, and works the pump by an iron rod, half an inch diameter, suspended from posts by a wire. This requires two cranks. The wheel is 10 feet diameter, and the piston has 2¼ inch stroke, which could be more than doubled if more water was wanted, but with this stroke the mill with a right breeze will work with 150 pound weight on the piston rod, and throw from an inch pipe over 1 gallon of water per minute. This gives us far more water than is wanted, and accordingly we do not find it necessary to pump longer than an average of 2 hours in the 24.

The present winter has been well calculated to try wind wheels, but so far this one, with all the severe gales which we have had, has maintained its character for *direct self-regulation*, and consequent exemption from injury. It has performed all required of it without the loss of a screw or starting a bolt.

I can confidently recommend those who desire to employ wind power to examine the structure and action of this machine. Its simplicity and adaptation to the purposes for which it is designed, bring it under the class of those happy inventions, that have just got hold of nature and set her to work on her own plan. Caleb Stabler. *Drayton, Md.*

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Thornless Blackberry.—Wm. R. Prince, of Flushing, informs us that this blackberry, noticed by a correspondent in the Co. Gent. of Jan. 10, has been cultivated in their gardens by his father and himself for fifty years.

Wonders Familiar and Unobserved.

The pains that are taken to ransack remote countries for vegetable wonders, are in every way commendable. But we ought not to neglect those immediately under our own eyes, and easy to be procured. About the time or immediately after the tulip mania in Holland, the people of England opened their eyes with astonishment, on hearing that there was a magnificent tree discovered in America, that, during the season of flowering, was *covered with tulips!* The excitement was great, and pains were taken to procure the tree that became all the fashion. It truly deserved to be, for although it was our familiar *tulip-tree*, "the real old *yellow whitewood*," of the Yankees, (*Liriodendron tulipifera*,) it is certainly one of the finest shade trees of any country. Another example is the *Hemlock*, which is discarded with contempt by some who will pay several dollars for East India evergreens, of decidedly inferior beauty, and requiring nursing through every winter. Our common *Sumach*, (*Rhus typhinum*,) with its long pinnate leaves and large compact panicles of red berries, would be a *wonder* if recently discovered in China, but is now regarded almost as a nuisance. We observe that some of the English nursery catalogues offer our fence-line *elders* for sale in *pots*, and some other varieties equally common here. "'Tis distance lends enchantment to the view," but true taste, properly cultivated, will find as much beauty in common objects, as in those which are hard to procure. We should be glad to see more attention given to our native trees in forming ornamental plantations. The Black, Silver, and Sugar Maples, are really more desirable than many imported rarities; our Catalpa is more valuable than the eastern Paulownia; the common White Pine is equalled in beauty by few of the new costly evergreens; and similar examples are common. As Cowper observes, "The world is all a miracle, but daily seen, is miracle in vain," because a habit and disposition to appreciate and admire what is beautiful and wonderful constantly around us, is not cultivated. There can be nothing more elevating, and tending to raise the mind above the level of brutes, than a habit of this kind. It was in allusion to the very common standard of measuring everything by the amount of food it will furnish, or *money* it will bring, that induced an eminent naturalist to make this very just remark:—"That existence is surely contemptible, which regards only the gratification of instinctive wants, and the preservation of a body made to perish."

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Supports for Newly Planted Trees.

Messrs. Editors—Observing an article in the January number of the Cultivator, page 12, on the mode of protecting young trees from the wind, I thought I would acquaint you with a method which I tried last summer, having previously used others which did not satisfy me so well, or answer so good a purpose. You will perceive the main advantage to be in simplicity, and in effectually preventing the tree from swaying in any direction. I make a frame by driving down two upright stakes, of a size suitable to the age of the tree to be supported, being careful not to interfere too much with the roots, letting them go deep enough to be quite firm, and as high as, or even higher, than the lower branches—say full two-thirds the height of the tree; then nail a strip of wood across the top, and tie the tree to that, but loose enough to prevent girdling. White oak and chestnut, or almost any other kind of wood, prepared by immersion in diluted sulphate of zinc, will last a great while. L. B. SUMNER. *Grantville, Mass.*

Raising Fruit Stocks, &c.

Where are colored plates, suitable for framing, of fruit and flowers, to be obtained? (1)

What is the *Manetti* stock, on which roses are worked—where procured and how increased? (2)

What is the Doucain stock—how procured and increased? and the same questions in relation to *Mahaleb* and *Paradise* stocks? (3)

How are evergreens grown from the seed successfully—Arbor-vitæ, Norway Spruce, &c.?

What is the best method of cleaning apple seed—separating it from the *pomace*, &c.? (4)

How are fruit scions best preserved for two months or so in cellar? (5) W. D. *Morristown, N. J.*

(1.) We know of no place where they are offered for sale. They are occasionally found in the print shops, but usually not with much scientific accuracy. The colored edition of the Horticulturist contains the best we know of issued in this country, but they are small, and not intended for framing.

(2.) It is a strong, late growing rose, the best sort for budding the rose upon. It may be had of some of the nurserymen, and is increased by cuttings, by layers and by stools.

(3.) The Paradise is a small species of apples, on which the cultivated varieties of the apple are worked, to make small dwarfs, growing about 4 or 5 feet high. The Doucain is a large species, and gives dwarf trees much larger than the Paradise, capable of being trained into respectable pyramids. Both are propagated by stools—that is, by cutting off the stems, so as to cause numerous sprouts or young shoots, which are banked up with earth early the following spring. Roots are thrown out from these shoots into the earth, and the newly formed plants are cut off from the stock the succeeding autumn. Successive crops are thus taken from the roots.

The Mahaleb is the stock for the dwarf cherry, and is raised from seed.

(4.) The mode of raising evergreens from seed, we gave lately in answer to an inquiry; and some weeks since the mode of washing out apple seed from pomace.

(5.) In a box of slightly moist sand, or packed in layers alternating with damp moss. The drier the better, provided there is no contracting or shrivelling from the evaporation of moisture. They should be occasionally examined in the boxes.

Artificial Manures for Fruit Trees.

I should like to know whether any of the artificial manures would answer as good a purpose in the case of fruit trees, as farm made manures. J. H. HODSON. *Sackville, N S.*

The best manures for fruit trees, under usual circumstances, are composts made of stable manure, turf. muck, or loam, with a small quantity of ashes, and still less lime. The addition of guano, bone manure, &c. increases its value. The proportions may be one third yard manure, over one third turf, loam, or peat, and a tenth ashes, a twentieth guano, or bone manure The special manures applied separately, *sometimes* produce decided results, but not usually.

Letter from East Tennessee.

MESSRS. EDITORS—I enclose you my third remittance this year, making close on one hundred subscribers I have sent you for The Cultivator, this year. I want no better indication of the improving condition of our agriculturists than their greatly increasing disposition to patronize agricultural papers; and your Cultivator is almost universally regarded as standing at the head of its class. I have sent for it more or less subscribers each year for the last fifteen; but until the last, have been rarely able to obtain more than from six to a dozen each year. Last year, with a little increased trouble, I sent you near seventy.

The agricultural inducements of East Tenessee, are augmenting with almost unexampled rapidity. Last year we held our first County Fair, which was crowded with interest to our citizens, and spake loudly for the future.

Our division of the state has been denominated "*The Switzerland of America*," being surrounded by mountain barriers, much isolated from markets, and penetrated by ridges, making it, too, a land of valleys. The genius of railroad enterprise, has pushed to our borders on the south and west and deep into our leading valley, affording a ready means of transit to market for our valuable staples, and has quickened the energies of our people to a degree hitherto unthought of. The Virginia and East Tennessee railroad will soon be completed, making a connecting stem between the various roads that come to our borders from the south and west, and the north east, and which, by "manifest destiny," is bound to be the great thoroughfare for transportation and travel between those largely interchanging divisions of our union—courted not less by our healthful breezes and magnificent scenery, than by direction of line. We have water power sufficient to turn the combined machinery of the world, and minerals and fuel to work out its supply of metal. Our land has increased in value from one to three hundred per cent, and yet every prospect is in favor of investments in land. E. LINK. *Greenville, Tenn.*

Plans of Farm Houses.

As I am writing, I will venture to mention what I have often thought, which is, that the plans for dwelling houses, found in your and almost all other publications, are aside from the common wants of a farming community. I think they usually are too high, or too low, for the great middle class of our community, which, if I mistake not, seek for strength, durability, comfort, convenience and neatness, at an expense varying from one to two thousand dollars. The few expend several thousands, while a few attempt with less than one; but in nine cases out of ten the farmers of of our country range between.

Every form of building, from the 8 sided or square, to the numberless corners and angles of the gothic cottage, and every kind of material from the rough stones of our mountains or the smooth pebbles of our streams, the logs of our mountains to the balloon frames of the West, are found scattered through the length and breadth of our land. The comparative expense of each with their relative advantages, are questions of much interest to multitudes. H D. HAWLEY. *Farmington, Ct.*

The above remarks of our correspondent contain much truth, and in our next Rural Register we intend to give several plans and designs, precisely of the character desired.

ENTOMOLOGY.

No. 8—Cut-worms.

L. A. Brown, Esq., of West Haven, Ct., under date of July 21st, 1855, writes to the editors of the Country Gentleman as follows:

> Will you or some of your readers inform us, through your paper, how the *Cut-worm* is produced—whether from the miller, or whether they bring forth their young like the rabbit or any of the animal creation? I would like to know also whether one kind of soil more than another, or whether different manures, coarse or fine, have a tendency to increase their numbers. Their name is legion with us, this season. More than thirty have been found around one cucumber hill. Whole fields of cabbages have been cut down in a night. The subject of their production has been up for discussion, but no one seems to know, nor is there any author that we have that throws any light on the subject. I have had some experience relating to their production, but it is so at variance with my previous ideas that I want more light before publishing it.

Whether the cut-worm is more numerous in one kind of soil than another, I am unable to say. The soil of my own neighborhood is a gravelly loam, and in this the cut-worm is common. I presume it is equally common in sandy and clay soils. In one instance, at the bottom of a bowl-shaped hollow, where the soil partook of the nature of a stiff clay, a number of cut-worms were found, when there were scarcely any in the surrounding gravelly soil; but it was probably the more juicy, tender growth of the corn in this damp hollow, which caused the worms to gather there, rather than the nature of the soil.

I do not think the fertility of the soil, or the kind of manure which is applied to it, has any influence upon these worms, except in making the plants grow more succulent, for it is vegetation of this character which appears to be their favorite food. We all know these worms are common in our highly manured gardens. And I have never found them more plenty than on one occasion among beans planted upon a hill-side, so barren that it was thought nothing else could be raised there.

The biography of these worms is briefly as follows: The parent insect drops her eggs upon the ground, the latter part of summer. These soon hatch, and the young worms which come from them, crawl into the ground and feed upon the roots and tender shoots of herbaceous plants. When cold weather arrives they descend a few inches below the surface and there lie torpid during the winter, and renew their activity when spring returns. It is not until they have nearly completed their growth, in the month of June, that they show that habit which renders them so injurious, and has acquired for them their name, "cut-worm." They then crawl from the earth, by night, and with their sharp teeth cut off the young succulent plants of maize, cabbage, beans, &c., almost as smoothly as though it were done with a knife. When daylight approaches, each worm crawls into the ground again, entering it within a few inches of the plant it has severed—the newly disturbed and rough appearance of the dirt showing the exact spot where it has gone into the ground, and rendering it easy to uncover and destroy the worm. Having got its growth it forms a little oval cavity in the ground, within which it lies and changes to a pupa or chrysalis. In this state it has some resemblance to a long slim egg of a chestnut brown color, having several impressed rings or joints towards its pointed or tail end. From this pupa, in three or four weeks, hatches the perfect insect, which is a dark colored miller or moth.

Every observing person is aware there are several kinds of these worms, differing from each other in the color of their heads, the stripes upon their bodies, and in their habits. But unfortunately we do not yet know which particular species of moth it is which either of the kinds of these worms produces. I have repeatedly endeavored to breed the moth from these worms, by placing them in cages into which I transplanted young corn, beans, &c., and also by placing bell-glasses over corn hills where worms had buried themselves. But I have never been able to succeed. The worms on finding themselves imprisoned, refuse to eat, and hurriedly crawl around and around the inner side of their prison, night after night, until they literally travel themselves to death. They are by no means such sluggish, stupid creatures as one would suppose from seeing them in the day time. By night they are as active as any other animal whose skin is stuffed and distended with food as theirs is. They are evidently able to crawl quite a distance in a single night. It is the common opinion that they are always bred in the ground near the spot where they do their mischief. But I suspect they are everywhere wandering about, nightly, in search of such tender, succulent plants as will furnish them a dainty repast, and that they thus in many instances enter our gardens and corn-fields from the surrounding enclosures. They certainly, if so inclined, could travel across the largest of our arable fields in a few hours.

The following short descriptions of the different kinds of cut-worms which have fallen under my notice, and their habits, I extract from my manuscripts. All these worms, except the White one, are about an inch and a quarter in length when at rest, and an inch and a half when crawling. They all have four polished elevated dots upon each segment, on the back, and a few others which are less distinct, upon the sides, each dot bearing an exceedingly fine hair.

The Red-headed cut-worm is of a dull pale brown color, without any stripes, and may be distinguished from all the other kinds by its head, which is of a tawny red color, instead of smoky yellowish as it is in each of the following, except the last one. Common in cornfields, cutting off the plants slightly below the surface of the ground, and thus always destroying them. On Staten and Long Island, I am told, this species is popularly named the "Tiger worm," from its destructive habits, and that the name cut-worm is there applied only to the next species.

The Striped cut-worm is dirty whitish or pale smoky, with darker brown stripes, of which there are two along the back and three broader ones along each side; dots black, as they are in the preceding species, but not so minute. This is the most common kind in cornfields, cutting off the plants half an inch above the ground; hence the stalk frequently shoots up again, from the middle of the stump. This occasionally occurs among beans also. It buries itself but slightly, and may sometimes be found with half its back exposed, even though the sun be shining clear and hot.

The Faintly-lined cut-worm is dull brown, with very faint pale longitudinal lines, and the polished dots but little darker than the general color. Found in cornfields, but more commonly in gardens among cabbages and sometimes among onions. Buries itself but slightly

The White cut-worm is smaller, being scarcely an inch long when at rest. It is dull white, with black dots and no stripes or lines except a row of very faint brownish touches along the upper part of each side. It is rare, a single individual being occasionally found among corn and beans.

The Black-headed cut-worm is dull dark brown, with faint traces of pale lines, and its head deep black. This is probably what is named the "Black worm" in some neighborhoods. It is the most common kind among beans, cutting them off slightly below the surface, and drawing the severed stem into the hole where it buries itself, and there feeding upon it during the day, till the whole is devoured, or only pieces of the wilted leaves remain, plugging up the entrance of the hole. Either the Striped or the Lined cut-worm frequently treats corn in this same way. Hence the stump may often be found without any wilted leaves lying near it.

There are doubtless other species of cut-worms which have not yet presented themselves to my notice, my investigations of these insects being as yet far from complete. My young cucumbers being always enclosed in boxes open at the bottom and top, are never molested by cut-worms, and seldom by other insects; hence I know not the worm which depredates on them.

As already stated, the particular species of moth or miller into which either of our American cut-worms changes, has never been ascertained. Most of the species, however, pertain to the genus *Agrotis*, of the family NOCTUIDÆ, or Owlet-moths. In England the insects of this genus are named "Dart moths," from a peculiar spot or streak which many of them have near the base of their fore wings, resembling the point of a dart or spear. Much the most common species of this genus in the state of New-York, can be nothing else than the Gothic Dart (*Agrotis subgothica*) of the British entomologists. This was first described by Mr. Haworth in the year 1810, and is current in all the books as a British insect. Mr. Stephens, however, says it is very rare, only three or four specimens having been found in England I doubt not it is an American insect, the eggs or larvæ of which have accidentally been carried to England, probably in the earth in which plants have been transported thither. Here it is one of the most common of those moths which come in at the open windows of our houses in warm summer evenings, attracted by the lights of the candles. I have thus taken more than a dozen specimens in an hour. It begins to appear early in July and continues till September, and in Illinois I met with it on one of the last days of this month. Its wings when spread measure from over an inch and a quarter to an inch and a half across. It is of a grayish-brown color, and the four wings have a broad whitish stripe on the outer margin from the base to beyond the middle, and another branching from this and running through the centre of the wing. Between these whitish stripes is a pale triangular spot having its outer side wholly confluent with the outer stripe, and back of this is a second pale spot which is kidney-shaped, the space before, between and behind these spots being black or dark brown. And extending from the base of the wing along the inner side of the inner stripe is a broad black or dark brown streak (representing the dart head above alluded to,) which streak is crossed by two slender pale lines, these lines not parallel with each other. This last mark with the two pale lines across it, will alone distinguish this from all our other moths.

Our next most common species is the Devastating Dart (*Agrotis devastator*,) thus named by Mr. Brace in the year 1819, in a short article upon the cut-worm, published in the first volume of Silliman's Journal, page 157. And it appears to be this same species, which has recently been figured and named *Agrotis Marshallana* by Mr. Westwood, from a single specimen found in England by T. Marshall, Esq., (Humphrey's British Moths, vol. i, p. 122.) In this species the wings when spread are from an inch and a half to over an inch and three-fourths across. The fore wings are grayish brown, and are crossed by four equidistant wavy whitish lines, which are edged more or less with blackish. But commonly only the last one or two of these lines can be perceived; and the last line has a row of blackish triangular spots, like arrow heads, along its anterior side, their points directed towards the base of the wing. Often these spots are so obliterated that only one or two of the middle ones can be discerned in a particular reflection of the light. But it is by these spots more than any other character that I discriminate specimens of this species; for it is variable, with its marks obscure and more or less obliterated, from its wings when flying having been fluttered and rubbed against grass, leaves, &c., as is apt to be the case with most of the insects of this order.

Although more than a dozen other species of Dart-moths are known to me, the two now described will suffice as examples of the insects whose eggs produce the cut-worms. Though so common, they are seldom seen in the day-time, being then at rest, secreted in dark situations, such as the crevices in stone walls and the cracks under the clapboards of buildings. By looking behind the window-shutters of my office, at any time in July or August, I am able to obtain specimens of the Devastating Dart and one or two other less common species.

As to the best modes for subduing the cut-worm and guarding against its ravages, only a few words will be necessary, as this topic has been so often discussed in our agricultural journals. Commonly only one or two stalks in a hill of corn or beans are cut off, and the remainder is left unmolested, the worms appearing to require but one or two meals of this kind, just as they are on the point of changing to pupæ. It is well, therefore, to plant so much seed as will enable these depredators to glut their appetites without taking all the stalks in the hill. Observation has long pointed to this as a precaution which should always be taken. Hence the old rule as to the number of kernels which should be planted in each hill of corn—

> "One for the black-bird and one for the crow,
> Two for the cut-worm and three to grow."

But occasionally these worms are so numerous that active exertions must be put forth to save the crops from destruction. And general experience shows we have as yet only one resort which is perfectly certain and reliable, to wit, digging the worms out from their retreats and destroying them. To go over a large corn-field carefully, on this errand, and promptly as the exigency of the case demands, is quite a formidable task. Still, every one will perceive on a moment's reflection that when this measure is necessary to save the crop, the same amount of labor can scarcely be bestowed elsewhere so profitably.

It however is very desirable that some effectual and more speedy mode of combatting these insects should be discovered So long ago as 1817, a notice in the newspapers stated that making a few holes about the hills with a sharp stick was an easy way to entrap these worms, as they would fall into such holes, and being unable to crawl out of them, would perish—some of the holes being found half full of worms thus gathered in a single night A writer in the *Michigan Farmer*, whose communication was fully noticed in the *Country Gentleman* of June 7th, 1855, bears strong testimony to the efficacy of this measure. From my own observations it appears that these worms are never able to crawl the length of their bodies up a perpendicular bank of earth, before they loose their foothold and fall. I hence presume the measure above spoken of will be effectual. Indeed, if my supposition is correct, that these worms mostly come from the surrounding fields, to the places where we notice them, I have thought that a single deep furrow, struck around the outside of a field or garden, when the worms are first beginning to appear—any break in the land-side of the furrow being repaired with a hoe—would form a barrier over which it would be impossible for them to make their way—thus protecting the whole field effectually and at a very trifling cost. I hope in one or two summers to complete my observations so that I can speak with more confidence upon this subject than I am able to do at present. ASA FITCH. *Salem, N. Y., Feb. 20*

WATERTOWN.—The citizens of this town have held a meeting, and resolved to accept the terms on which it is proposed to hold the next State Fair at that place. The necessary committees were appointed, and it is believed they will have every thing ready to complete the arrangements at the meeting of the Executive Committee in April.

Indian Wheat—its Value and Culture.

I noticed an inquiry, a few weeks since, in the Co. Gent, in regard to "Indian Wheat." This grain was introduced into this town about 23 years ago, from Canada I think; since when it has been constantly cultivated by some of our farmers, and now *nearly every* farmer raises it, although a very few, after trying it a year or two, discontinued it, some because they thought it would over-run their whole farm, and some because "the women" could not use it, neither of which do I consider valid objections. It will live in the ground over winter, so that it may be sown at any time from the harvesting of one crop to the gathering of the next; but we usually sow it after all the other crops are in, and harvest it before it is so ripe as to shell off from the straw—it being necessary to cut it when the dew is on. Our farmers often keep the same piece to Indian wheat for several successive years, and it seems to do as well so. If the soil is too rich, it "runs to straw" too much. The average crop is from 45 to 50 bushels to the acre, about the same as oats, although both often produce 75 to 110 bushels per acre on our soil. The average weight is about 48 lbs. per bushel, and 16 to 18 lbs. of superfine flour per bushel. The canail I consider worth more per lb. than oats for stock; it is quite bitter and seems to act as a tonic, and sharpens the appetite much. I think this grain is worth full one-quarter more than oats for horses—possessing, to a good degree, the property of corn that makes *fat*, and that of oats that produces *muscle*.

To a very *lazy* horse, I would feed oats in preference to any other grain; to one with too much *animation*, so as to be rather unmanageable in consequence, I would feed corn; but to our "Vermont horses" in general, for you know they are a little nearer *right* than any other, I would give "Indian wheat" in preference to all other grains, for economy or utility. For mixing with "cut feed," it is much preferred to any thing else. There is a great proportion of gluten so that it sticks remarkably well to the straw or stalks when wet.

For food for man it is also esteemed the most highly by those who have used it the most, being very palatable, nutritious, easy of digestion, and very handy to cook, either in the form of "Johnny-cakes," "Slapjacks," boiled or baked puddings—or any way to be eaten while *warm*, as it is so "light," when cooked, that it soon becomes dry. R. Nutting. *Randolph, Vt.*

Orange Watermelon—How to Start Melons.

There has been so much said of late, about the Orange Watermelon, that I am induced to offer the genuine seeds to persons who feel disposed to try them, on receipt of their address, and a postage stamp for the return letter. The seeds from which I raised some of the finest melons I ever tasted, were presented to me by a friend who received them direct from Georgia. My plan for obtaining early plants, is, to construct a rude basket or wicker-work of willow or other twigs, something like a bird's nest, without the inside filling up. Make a hole in the soil of the hot bed of sufficient size to admit the basket; fill up, plant and cover the seeds, rake, and smooth the surface. When the weather is warm enough, and sufficiently settled to admit of out-side planting, I make my hills, and lift the little baskets containing the plants, and carefully remove them to their places, where they quickly strike through the open net-work of the basket into mother earth, and soon repay all trouble for giving them "a start in the world." E. J. McCarthy. *Saugerties, N. Y.*

Draining with Rails.

Editors Co. Gent.—In reply to the inquiry of "D. D." Winfield, Ind, I would only advise the use of rails in underdraining when tile or stone cannot be had. However, by charring the rails upon a brush fire, I believe they will last as long as some of the half burnt tile which I have seen, and which begin to crumble before you can get them into the ground.

The drain should be 30 or 33 inches deep, 18 inches wide at the top, and tapering to 8 inches at the bottom. Fill in with rough twisted rails 10 or 12 inches, and cover with a thin layer of straw, cornstalks or sod inverted, and your drain is then ready to be filled up with earth. You have thus the top of your drain below the reach of even the subsoil plow. If "D. D." can get rails, such as I have heard of in the west, so snarly and crooked that they wont lay still in a fence, all the better will be his drain, and the greater capacity will it give for the flow of the water.

Those who have had no experience in draining, will be surprised at the small space required to carry off the water in the most marshy land.

It is important to have a fall of at least one foot in a hundred, and also to fill up each day's work as you go, as exposure to even a slight frost or rain, causes the sides to crumble, and thus the solidity of the earth is disturbed, and the open space is liable to be filled up.

If "D D" is a practical man, he will learn much as he progresses, and will make each day's work an improvement upon the previous one. J. B. S. *Pittsburgh, Pa.*

The Oregon Pea.

Messrs. Eds.—In an editorial, headed "A Run through the Patent Office Report," in Co. Gent. Feb. 7th, it is said—"no reports of trials made in growing the Oregon pea in the more northerly states have yet been made public." This is a mistake. In the spring of 1854, I received from the Patent Office a package, each of the Oregon and Japan peas. I furnished an account of the result of my trial with them, for the *Granite Farmer*, which was published in that paper of Feb. 17th, 1855.

The two kinds of peas were planted on the 12th of May, in a warm, deep loamy soil; well sheltered from the north winds. They were frequently hoed; and about the 20th of September, they had grown some three feet high The Japan pea had at that time, many clusters of pods, and some of the earliest were fit for shelled beans. The Oregon had just commenced blooming, when a heavy frost 25th of Sept., nipped them in the buds. Two of my neighbors planted the peas with precisely the same results. In Tennessee and Ohio, these peas may be fully entitled to all the praise they have received in the Patent Office Reports; but in New Hampshire, I think they are of no more agricultural value than the cotton plant or sugar cane. I planted on the same soil, and under the same treatment, several kinds of beans, peas, and early potatoes. These, all produced well; and had they been harvested for that purpose, they would have afforded much more forage for cattle and sheep—or much more material for plowing in, as green manure, than either the Japan or Oregon pea. The Editor of the *Granite Farmer*, in a *note* following my communication, says —"we distributed scores of packages of the peas referred to, and requested our friends to experiment with them in various ways. The result in no case was favorable, and we readily came to the same conclusion expressed by Mr. Bartlett." There were two articles published last year in the *Rural New-Yorker*, on the Oregon pea, one from Michigan, and the other from some portion of western New-York, in neither case, if I recollect aright, did they mature. From the statements here given, I think it is not a suitable plant for these northern regions, nor is the Baden corn—yet the corn and the peas, do well farther south, and so does the sugar cane and cotton plant. L. Bartlett. *Warner, N. H.*

Cheap Way of Underdraining.

The following, from Gen. Harmon of Wheatland, N. Y., we copy from the *New-York Chronicle*. It is practical, and to the point:

There is no one subject that demands more attention among farmers, than the underdraining of low and swampy lands. In passing through the farming districts, we see many large plats of land which are enclosed and the owners are paying taxes on, which do not yield annually the cost of keeping them. Now these useless acres could be made to pay the interest of one hundred dollars for each, annually, while the interest on the cost of improvement would not be one dollar an acre. Many have supposed, as their works show, that an open drain from twelve to eighteen inches deep and wide, is all that is required to make wet land productive.

In draining, the first step is to procure suitable tools for the business. Common drains should be dug fifteen inches at the top and three at the bottom, three feet deep on all soils free from stones. This size is the cheapest. If the banks are solid, the cheapest tile that I have used, is to lay in cedar, pine, black-ash, or any green poles that will go down within six or eight inches of the bottom; they should be stepped on and crowded down solid; then fill in one-third full of earth, pound it down firm with a paver's mallet; then fill the other third as before, and finish off.

One great difficulty in filling drains is, that the earth is left too loose, so that mice make holes which let in the water from the surface, which will soon spoil a drain that is made of stone, poles or brick. Water is carried under ground much cheaper than on the surface, and a field of several open drains is not good economy. When covered under ground, they may be plowed over and rendered productive. Where drains are needed in stony soils, the bottom of the ditch should be wide, so that one could stand and work in it; and stones laid so as to carry off the water. In some sections tile would be cheapest. No farmer who has wet lands should neglect to drain them because he cannot get tile.

Some plats of land are made dry by a ditch around them. Others will require several ditches through them. Such land, when made dry, will be the most productive. Carrots and potatoes will do well on such soils, and most of the spring crops. The grasses and hay from such soil will be worth twice as much as the same weight from lands that are too wet. If the wet lands which are enclosed in this State could be made dry, they would add millions to our farming products and our commerce.

Three spades are used to make narrow drains,—one common one, one blade five inches wide and fourteen long, and one five inches at the top and three at the end of the blade, handle five feet long, so that one can stand on the top of the ditch in taking out the lowest part of the earth.

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Preserving Eggs.—A correspondent of the Southern Cultivator gives the following as a certain recipe: Grease fresh eggs with lard, and pack them away in a keg with alternate layers of corn or wheat bran, small ends downward, and so arranged as neither to touch each other or the sides of the keg. In this way they have been kept perfectly sound for twelve months.

Acclimating Seed Corn.

Messrs. Editors—In your 6th no. of the Co. Gent. I find a piece from the Rural New-Yorker, in which the writer doubts the ability of corn to adapt and conform itself to the climate in which it is raised. My experience goes to prove that corn will become acclimated by planting it in the same location for a few successive years. I reside in lat. 42° 11″ north, and plant corn on mica or argillaceous slate soil, which, by the Trigonometrical Survey of this state, is about 1,600 feet above the level of the sea—consequently it must be cool.

I have often, for experiment, brought seed corn from low sandy land in Connecticut, that would barely ripen here the first season, but in a few years it would be early as corn that is usually raised in this vicinity.

I have also had seed corn from near Mount Monadnoc, New-Hampshire, which ripened earlier the first than the second years planting, but by selecting seed for a number of years, which every farmer can do, (that is the way by which Mr. Brown improved his King Philip corn,) from stalks that ripened first and produced from two to three ears, I have a variety in my opinion equal to any other.

When I first commenced planting this kind of corn, it was all flesh colored or brown, like the King Philip. Now about half of the ears are yellow. I have compared many of the brown ears with my King Philip corn raised last season, the seed of which I received for the Patent Office, but could perceive no difference in color or general appearance, which is one reason of my proposing to part with a variety the seed of which so many are anxious to obtain. I do not think so much of the name, as of a kind of corn that will ripen early, and yield most in proportion to the size of the stalks.

Therefore permit me to say that those farmers who lost their corn by the frost last year, may, if they will only obtain seed corn that was grown on high land and from a latitude north of their present location, be almost sure of a variety that will ripen before the autumnal frosts. W. E. Boise. *Blandford, Mass.*

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Profits of Poultry-Keeping.

Messrs. Editors—Being not only a subscriber, but a reader to your excellent paper, and observing results of trials in the culture of poultry of different kinds, I commenced on the first day of January, 1854, with six pullets and one biddy of the Shanghai variety, which cost six dollars. I enclosed an eighth of an acre, and reserved one-half for pasture, (by a division fence,) to feed as I choose; the other half was occasionally plowed. They were fed with corn, oats and meal, until the 1st of January, 1855, which feed cost $19 96.

The following statement gives the cost of stock, feed and nett gain:

Dr—	To 7 fowls,	$ 6.00	
	Feed,	19.96	
	Nett gain,	62.44	
			$88.40
Cr.—	By eggs and chickens,	$73.40	
	Fowls on hand,	15.00	
			$88 40

The above statement, Messrs. Editors, I think is calculated to induce those occupying small farms, to favor the raising of poultry as a means of profit, in preference to some other kinds of stock that require more care, more feed, and furnish less nett gain, for the amount invested. A Boy. *Burlington Co., N. J.* [This statement would have been more valuable, had the writer given the prices at which the eggs and chickens were sold.]

Bloody Murrain in Cattle.

Messrs. Editors—In the Jan. No. of the Cultivator, there is a communication from J. M. Jessup, concerning the Bloody Murrain in cattle. I know nothing about the disease from my own observation, as it is very rarely seen in this part of the country; but in looking over a volume of the Memoirs of the Philadelphia Society for Promoting Agriculture, published in Philadelphia in 1826, I find letters to the Society from a number of farmers, giving their opinions as to the cause, cure, and prevention of that fatal disease. A number of cattle were opened after death, and in all cases the manyfolds were found filled with dry food, and very much swollen. No other part of the abdominal contents showed any signs of disease, except the gall bladder, which was surprisingly distended. They appeared to think, as Mr. Jessup did, that they have an appetite to swallow more food, than the powers of the stomach can digest, which causes a stagnation. I think from what I have read about it, this is the true cause.

In the above Memoirs there is a letter from Benj. Harrison of Virginia, giving a cure for it, which he verily believes will cure nineteen cases out of twenty. It is simply this: Drench the animal with an infusion of cedar berries, generally about a quart of the infusion, together with half a pint of the berries. It may be necessary to repeat the drench four or five times. He also gives a preventive. It is a mixture of clay, salt (in the usual proportion for stock,) tar and powdered brimstone. For fifty head of cattle, one gallon of tar and half a pound of brimstone per week, put in a trough to which the cattle had free access.

A friend tells me he has known the above remedy tried in a few cases, and that it relieved the animal in a short time. The remedy is so simple that it ought in all cases to be tried, where the berries can be procured. It may be the means of saving the lives of many fine cattle. J. W. Lequear. *Kingwood, N. J.*

Messrs. Editors—I noticed a few weeks since, an inquiry for a cure for the bloody murrain, and will tell you what has proved successful here.

Take two lbs. of epsom salts and six oz. tallow, and pour enough boiling water on to dissolve it—then let it cool sufficiently, and give one third of it for a dose. If the animal is not better in six hours, give one half the remainder, and if not better in six hours more give the rest. One of our neighbors, an Englishman, told me that the above would effect a cure if given before the blood turned black. I tried it by heating the water until it would melt the salts and tallow, and then gave it, but lost two or three animals, when I saw a recipe in the Prairie Farmer, given by him, which said pour "*boiling water*" on, since which time I have not lost a case, and I think it a sure remedy when given soon after the attack. Asa Howes. *Oak Creek, Wis.*

One Way to Keep Eggs.

During a long voyage to South America, it was noticed how fresh the eggs continued to be. The steward was called on for his secret. He said that as he purchased his stock, he packed it down in small boxes—raisin boxes—and afterwards, about once a week, turned over every box but the one out of which he was using. This was all. The reason of his success is, that by turning the eggs over, he kept the yolks about the middle of the albumen. If still, the yolk will after a while find its way through the white to the shell, and when it does so, the egg will spoil. Hens understand this fact, for they, as is well known, turn over the eggs on which they set at least daily. E S.

Ingredients for Different Paints.

Messrs. Editors—Will you have the kindness to answer through the columns of the Country Gentleman, what ingredients it requires to make the following Paints: Red, Yellow, Lead, Slate, Blue, Green, White, Brown, Stone and Black, and much oblige, W. W. H. *Middletown, Ct.*

Although there are many shades of most of the colors embraced in the above inquiry, and many different materials from which they may be made, we shall confine our answers to those in most general use.

A *bright* red, may be made of red lead; and a red of a *darker* shade, of Venitian red.

The best light yellow, is made of chrome yellow, and a darker and inferior color, but *very much* cheaper, of yellow ochre.

Lead color is made of white lead, with a very small portion of lamp black added.

Slate color, same as the lead color, with the addition of a little blue.

Green may be made of *various shades*, by mixing in different proportions, either of the yellow above mentioned with Prussian Blue, or strong and handsome greens may be purchased in the form of Chrome green and Brunswick green.

A *very dark* blue, approaching black, is made of pure Prussian blue, and any shade of lighter blue by the addition of white lead in different proportions.

For white, use pure white lead.

A cheap brown may be made from Spanish brown, and browns of various shades from mixtures of black and red.

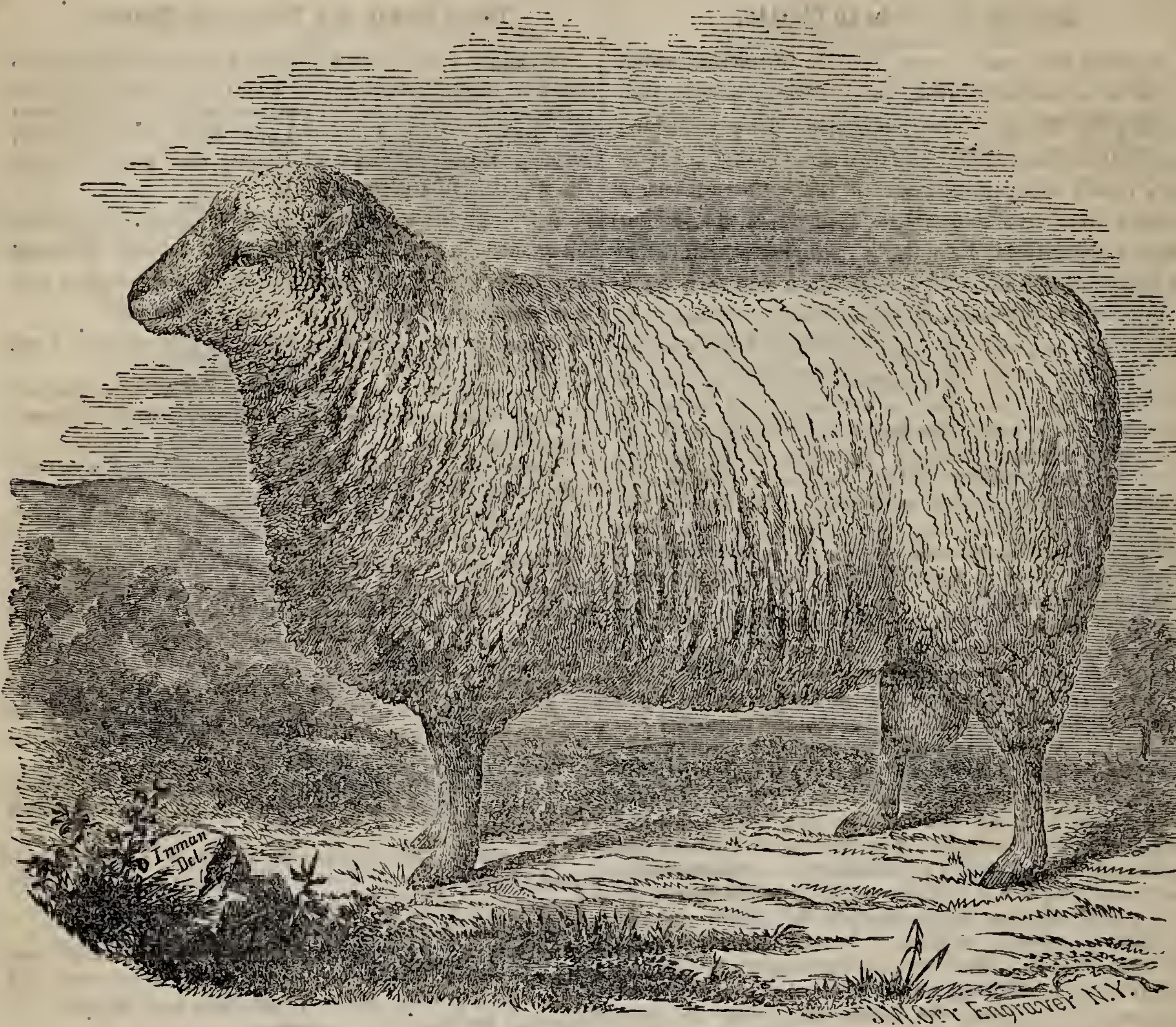
A warm stone color may be made of Venetian red, with the addition of a little white; and a colder shade is given by adding lamp black and more white.

For black, use best calcined lamp black.

Either of the above should be mixed with sufficient linseed oil to enable them to be easily ground, and then thinned with spirits turpentine to a proper consistence for use.

A Model Orchard.

At Nyack, in the county of Rockland, and state of New-York, is an orchard containing about one hundred trees, consisting entirely of the green Newtown Pippin. This orchard was planted some fifty years ago by Mr. Van Houghton. The trees are planted in squares, 40 feet apart each way, and having now apparently obtained their full growth, they show this to be a suitable distance, at which to plant trees for a permanent orchard. Each tree has sufficient room, so that their limbs do not die off for want of sufficient influence of the sun. Trees which are planted only 33 feet apart, on a strong soil, will branch out so far each way, when they have nearly attained their full growth that some limbs will die off for want of room. The soil on which this orchard is planted, does not appear to be of the strongest kind, but is rather peculiar. The black walnut and cedar grow upon it in close proximity. Nevertheless, by careful cultivation and manuring the trees have attained a more than common size and thriftiness, being from 20 to 24 inches in diameter, and some of them yet larger, at 3 feet from the ground, with large spreading tops; and is uncommonly even as to size of the trees. During Mr. Van Houghton's life, he was careful to apply sufficient manure, and to cultivate this orchard annually with pigs, so as not to let the grass grow too freely and prevent the full growth of the trees. Since his death, his successor uses it more for cattle pasture, and some of the trees now show symptons of decay. Mr. Van Houghton's method of cultivation is doubtless one of the best which can be devised, and the orchard which he has produced is a full proof of it. H. J. Canfield. *Mahoning Co. Ohio.*


Inman Del.
J. W. Orr Engraver N.Y.

Yearling South Down Ram.

The Yearling South Down Ram "Toncy," bred by Jonas Webb—winner of first prize at the Fairs of the New-Jersey State and Somerset Co. Agricultural Societies—also a winner at the Show of the United States Agricultural Society at Boston, Oct., 1856—the property of George Hartshorne of Rahway, New-Jersey—presented to him by Anthony G. Robinson, London.

Profit on Pigs and Poultry.

Messrs. Editors—During the nine years that I have pursued farming, I have kept accounts with farm stock, and with the products of the farm, and find it beneficial in many respects.

I herewith send you my accounts with poultry and swine for the past nine years. My poultry I charge with their worth at the commencement of the year, with the food they consume during the year, and the mischief they do about the premises, and credit the eggs they lay and the worth of those killed during the year, with the worth of those I have at the close of the year.

Abstract of account with hens:

Year.	*No.*	*Cost.*	*Worth*	*Profit*
1847..........	—	$17.25	$25.68	$8.43
1848..........	—	26.64	36.87	10.23
1849..........	—	23.11	45 59	22.48
1850..........	—	27.80	41.64	14 84
1851..........	34	36.05	53.10	17.05
1852	60	57.66	89.69	30.03
1853..........	67	69.45	91.57	22.12
1854..........	78	58.19	86.69	28.50
1855..........	70	74.09	82.67	8.58

Gain in nine years,..................$162.26

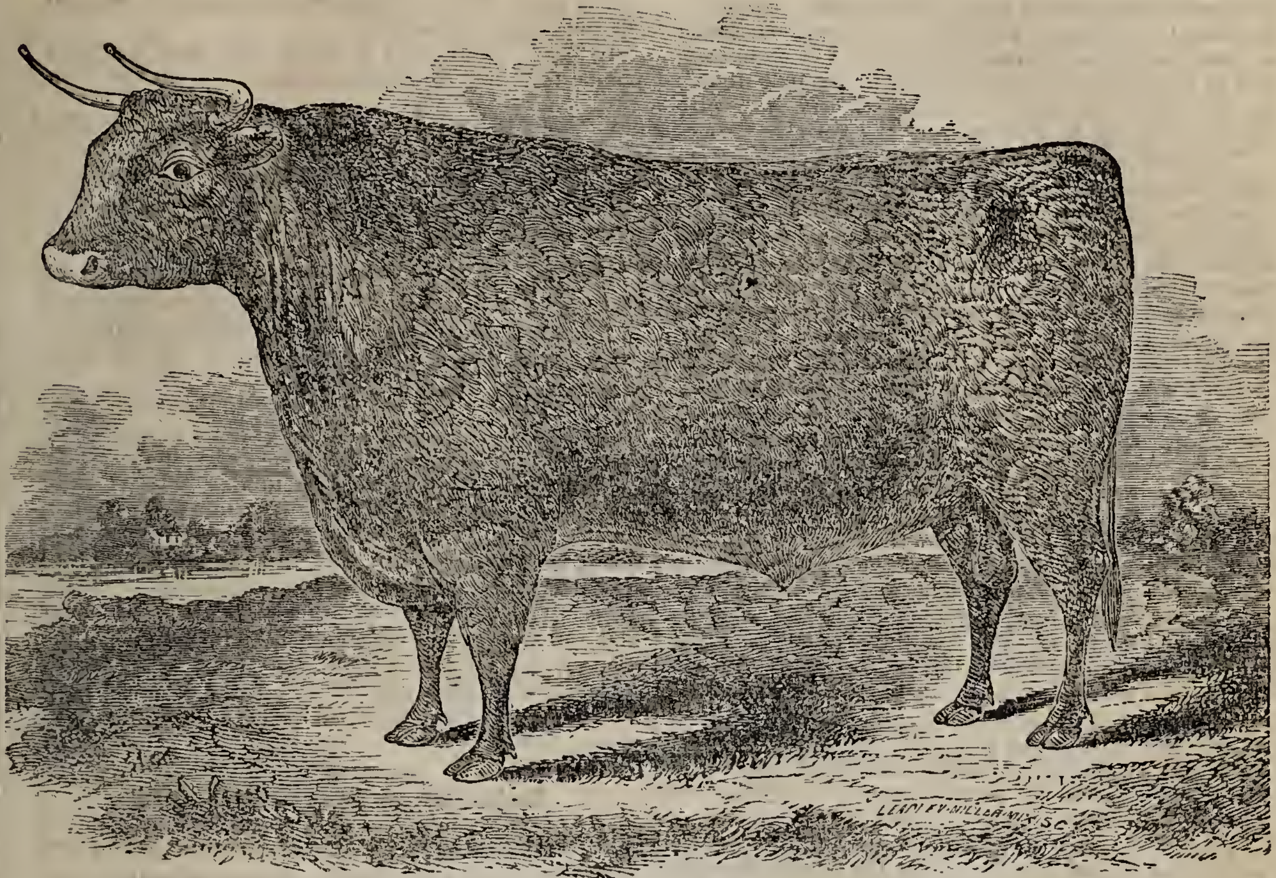
I have no record of the number of hens for the first four years.

I charge the swine their cost when I buy them, what grain they consume, and five or six dollars for the skim-milk from each cow I keep, and credit their market worth when slaughtered, allowing their manure as an offset to care and attention while fattening. My loss on swine I attribute in part to not keeping sufficiently well in the summer season, and consequently not slaughtering early enough in tho winter, and partly in not paying sufficient attention in selecting pigs. Generally have taken spring pigs and killed in the winter. Abstract of account with swine:

Year.	*No*	*Cost.*	*Worth.*	*Profit.*	*Loss.*
1847.....	3	$30 97	$43.79	$12 82	
1848.....	4	60.00	46.40	......	$13.60
1849.....	5	93.47	76.75	......	16.72
1850.....	12	131.92	104.46	......	27.46
1851.....	4	56.99	53.00	.....	3.99
1852.....	4	107.06	98.22	......	8.84
1853.....	4	115.64	101.04	......	14.60
1854.....	3	66.74	55.68	.....	11.06
1855....	3	58.55	65.00	6.45	
				$19 27	$96.27

Loss on the nine years, $77.

Here you see is a wide difference in the result in keeping two descriptions of farm stock; and without *facts* and *figures*, how can the farmer know whether he is gaining or losing from year to year in his farm operations? Milner Case. *Avon, Ct.*



Devon Bull Baltimore,

Which took the first prize of the N. Y. State Ag. Society in 1847—bred by H. N. Washbon of Morris, Otsego Co., N. Y.—the property of J. W. Collins of Sodus, Wayne Co., N. Y. Sire, Eclipse, (191)—imported by Mr. Patterson, from the herd of Mr. Bloomfield, of Warham, Norfolk, England—gr. sire, Willingham—dam, Rose of Baltimore, bred by Mr. Patterson, from Anchises, (140)—see Davy's Herd Book.

Chloride of Lime as a Remedy for Smut, &c.

A paper was recently read before a botanical society in Dublin, on the use of a solution of chloride of lime as a steep for wheat, and a remedy for smut. Some years ago, the writer of the communication read before this society, Dr. Steele, instituted a series of experiments, in which he was eminently successful in establishing the fact that chloride of lime was almost a specific in the prevention of smut in wheat. Various parties who had tried it have written to Dr. S. letters confirmatory of the above-named result of his experiments. The most instructive and interesting portions of the paper or lecture, read by Dr. S., we herewith lay before our readers, as it contains a great deal that is of little or no interest to practical men, and as it would occupy several of our pages if copied in full.

Of the nature, causes and cure of the various blights which attack their grain crops, but few among the growers of these crops know anything; and what little knowledge the better informed do possess, is vague, unsatisfactory, and useless for practical purposes. Nevertheless it requires but a little knowledge of the *nature* of these blights to banish all doubt and difficulty as to their mitigation or prevention, and to enable us to apply rational remedies for the cure of the disease.

The blights or fungi, attacking grain, are somewhat analogous to those diseases of animals which consist in the development of one class of living animals within the bodies and organs of other animals; such as worms in the intestinal canal, in the liver and spleen, in the brain of sheep, &c., &c. Analagously to these we find the internal parts of plants infested with other minute plants, produced, growing, and propagating their kind within their living habitations. Plants are found to be subject to diseases caused by the presence of other plants which have established themselves in their interior structure. The disease-plants belong, for the most part, to the tribe of fungi, the most striking characteristic of which is, perhaps, their sending forth myriads of scarcely perceptible sporules or seed-dust, to float in the air and start into life wherever they find an appropriate soil. The blights which affect grain crops, known to farmers by the names of bunt, smut-balls, pepper-brand, dust-brand, rust, red-gum, mildew and others—have been long known by botanists to be caused by the presence of certain fungi, of a definite size, figure and organization, and possessing character which distinguish them from each other. While some exclusively attack the leaves, others attack the straw, others the chaff, and others as exclusively prey upon the grain.

Of the fungi which prey upon the grain or seed, there are two distinct species. One of these is found to prey exclusively upon the grain of the wheat; the other rarely attacks wheat, but is extremely destructive to barley and oats. Both are commonly called smut. On breaking a smut-ball in the fungus which attacks wheat, it is found to consist wholly of a dark brown powder, having a most disgusting odor, almost undistinguishable from stinking fish. If a little of this dust be examined by the microscope, it is found to consist of a number of minute balls.

The grains attacked by this fungus are seldom shed, and scarcely ever burst spontaneously. They not unfrequently escape being ruptured in the process of threshing, and if not removed before being sent to mill, will communicate more or less of their abominable odor to the flour. The affected grains being lighter than water, may, however, be got rid of by immersion in water, if care be taken not to rupture them; for, if broken, the smut-ball or spores will sink with the sound grains to the bottom of the vessel.

The other species of blight which preys upon our cereal grains may be easily distinguished from that which has just been described. Instead of being, like the other, confined within the grain or ear, its work of destruction is completed, and the spores dissipated, long before the ripening of the crop, previously reducing the ear to the sooty condition which characterizes its presence. Unlike the other it cannot affect the meal or flour of the grain, though it very materially reduces the amount of the produce. This fungus is also devoid of the disagreeable odor of the former. Important differences are also perceptible between these two fungi, when examined with the microscope; but these are of no importance to agriculturists.

How are these blights or fungi propagated? This is a question of the greatest practical importance. In reply to it, we find the author of the paper under notice saying, that no circumstance in their history is so well established as the fact that if healthy seed be sown, which had been mixed with the spores of either kind of fungus, the ears of the future plants will be found to be affected with these blights respectively; and also, that if (what we may call) infected seed, be either carefully cleaned from the adhering spores of the blight, or steeped in some chemical solution which will kill the spores, but not the seed, the plants will in due time bear healthy ears. This latter process of pickling or dressing, or putting the grain into a steep, is required almost exclusively for the blight first described, as the other is usually dispersed before the crop ripens. The former remains in the ear, and by being threshed with the crop, contaminates the whole. It is, therefore, for the purpose of preventing this form of blight that steeps are generally employed.

Whenever blighted grains exist in a crop of wheat, it must be that some of them get broken, and their contents mixed with the grain. It cannot be safe to use any of such grain for seed, without using means to destroy the vitality of the fungus. This has been attempted in various ways. In some districts the practice has prevailed of immersing the seed for a short time in very hot water. This plan will answer the purpose very well, if care and good judgment are exercised to save the seed itself from injury. In various places, and by sundry persons, steeps have been used, made from lime, blue-stone, corrosive sublimate, white arsenic, to which may be added a mixture of sulphate of soda and quicklime—a dressing or steep highly recommended by a French commission, which inquired and reported on the subject.

Some years ago it occurred to Dr. Steele to apply a solution of chloride of lime to the spores of the wheat fungus or smut. The offensive smell, so characteristic of this fungus, was immediately destroyed, and after a few hours the spores were ruptured and disorganized. Encouraged by this he instituted experiments like the following. He took 4 lbs. of the finest and cleanest wheat seed, and set apart 1 lb. of it without any preparation. The remaining 3 lbs. or parts he mixed equally with a large quantity of the spores of the smut or bunt fungus, until the whole was rendered a uniform brown color. One pound of this infected seed he then steeped for two hours in a solution of chloride of lime, (1 lb. of the chloride to 1 gallon of water,) and dried it by sifting fine sand over it. Another pound of the infected seed was steeped for two hours in a saturated solution of sulphate of soda, (Glauber's salts,) which was dried by sifting over it a little fresh-slaked quicklime. The fourth part or pound was not subjected to any treatment. These four parcels of seed were then sown in four separate plots of ground.

The result of this experiment is thought to warrant the following conclusions:—

1. That wheat seed infected with smut produces plants, the grain of which is filled with a similar fungus.
2. That the presence of the smut or fungus is injurious to the straw, as well as destructive of the grain.
3. That steeping the infected seed in a saturated solution of Glauber's salts, and sprinkling it with quick-lime, has but little effect in preventing smut in the future plants.
4. That steeping the infected seed in a solution of chloride of lime, is nearly a specific in preventing smut in the future plants, and very much more effectual for this purpose than the steep of Glauber's salts, so highly praised by a French commission.

The chloride of lime has, during a few years past, been used as a wheat-steep by several farmers in different districts, and with the same satisfactory results.

The solution used is made by mixing 1 lb. of chloride of lime in one gallon of water, (soft,) stirring frequently with a *stick*, or something *wooden*, for two hours, or till dissolved. Put the grain to be steeped into a large quantity of water, stir frequently, and remove all the grains that swim. Pour off the water and add to the seed enough of the chloride of lime solution to cover it. Allow it to remain two hours, and then dry with sand, mould, lime or other powder. The solution poured off may be used again and again, or while it lasts.

Remarks on Breeding Horses.

EDITORS COUNTRY GENT.—I notice in your paper of Feb 7th, some inquiries by Equus, respecting horse breeding. Having been a close observer for a number of years, and having followed raising-colts to some extent for ten years past, I will simply state what I have learned from these sources. I do not exactly understand whether he desires to know at what age to *commence* or only *to* what age he may rely on mares breeding; but I will state my opinion of both. Mares that have been well treated while young, (that is, not allowed to get stunted in growth,) may be used at three years old; but as a general rule, four is early enough to commence breeding them. From this age, good mares may be bred every year, if due care be paid to feeding, and not over-working them, till they are twenty years old. Beyond this age, they cannot be relied upon with much degree of certainty to breed, although in many instances they do, but it is by no means a general rule.

In answer to the inquiry, whether ringbone, spavin, or any other disease is hereditary, I answer, that I am fully convinced some diseases are. Many years ago there was brought to this country a fine stallion, said to be a high blooded horse. He was stone blind, and the person who brought him here solemnly declared that it was caused by a severe blow between his eyes. This declaration, together with the fine form and graceful action of the horse, induced many of our farmers to breed their mares to him. But in a few years they saw how sadly they had been bitten; for a great number of his colts were either weak eyed, or went entirely blind, without any "*blow between the eyes*," as no doubt their sire did before them. Some of his colts were kept for stallions, and the same is as true of *their* posterity. I consider this proof-positive that blindness is hereditary in the horse.

Another disease has come under my observation, which satisfies me that it, also, is hereditary. It is what is called in Hoosierdom, club-foot, and I have seen instances of it springing from the sire, and others from the dam. I well know some deny this being hereditary, and argue that it is caused by the colt traveling on hard ground about the time the first hoof is growing off, and breaking, or wearing the foot sore, which causes it to stand on its toe, till its foot grows strait or turns under; but certain I am that there is a greater disposition in colts bred from club-footed parents to get *sore feet*, than there is in any others. So strongly am I convinced of the truth of this, that I would not breed a mare to a blind or club-footed horse if I considered him perfect in ever other particular.

With regard to ringbone, or spavin, I am not posted, but my opinion is that they are in some degree to be feared. If I owned a mare with either of these blemishes, I would not stop breeding her, unless I found by experience that she entailed the disease to her colts; but I should not run the risk of breeding a clean limbed mare to a stallion with these blemishes.

If Equus is about to enter into horse breeding, I would advise him to obtain good young mares, say from four to six years old, even if they cost him more, and then they are fit for both raising colts and work, and he will be saved the expense of keeping other horses to perform his farm labor. The colts may be easily learned to lead by their dams with halter, and thus save much annoyance to their master, and they will not be half the trouble to break when they are thus tamed. Ploughman. *New-Albany, Ind.*

Messrs. Editors—I will answer the inquiry of your correspondent in regard to breeding horses. He asks to what age mares may be used for that purpose. This question I think cannot be correctly answered, as there are some mares that will not breed after they are fifteen years old; others will breed till twenty-five years old. Twenty-two is about the usual age for mares to stop breeding. I have one that is twenty-seven years old in May, '56, that has raised six colts since she was twenty years old. I think that it is a mistaken idea that the colts of old mares are more liable to blindness or other diseases, than the colts of young mares.

I know that ringbone and spavin are both frequently hereditary; also blindness, or what is called lunatic eyes.

I will inform your readers how to prevent bots from injuring horses: Take a bundle of rye, cut it up very short, say one-fourth of an inch; mix with wheat bran, and wet it; add half a tea-cup of sugar, half an ounce of alum, and give the horse a feed of this, once every three months, and he will never be troubled with worms. H. H. Anderson.

Working Oxen of Maine.

Messrs. Editors — Mr. Greenlief Spauldin of Strong, Franklin Co., Maine, owns a pair of steers, two years old last May, which girt 7 feet 3 inches each. They are remarkably well formed and well proportioned cattle—are of the Durham breed, and were raised in this vicinity. They have had no grain or extra keeping thus far during the winter, but have been fed entirely on hay and oat straw, and have been regularly fed, kept warm, and been turned out of the barn a short time each pleasant day. They are well broken and have been accustomed to work.

Mr. Spauldin has another pair of the same age, which girt 7 feet each. They are also of the Durham breed. It is thought that in no part of the United States has so much attention been paid to the raising of fine working oxen as in Maine. The great numbers employed in the lumbering business, the very best being usually selected by lumbermen for the purpose, has stimulated farmers to take great pains in raising them.

Your friend the late Gov. Hill, who delivered an agricultural address here some 12 years since, afterwards remarked in his Monthly Visitor, that he saw in this part of Maine the finest working oxen he had ever seen anywhere. H. B. *Farmington, Maine.*

Poudrette and Night Soil.

Comparative Value of Poudrette.—I have read with much interest, your excellent article in the last No. of Co. Gent., on "Preparing Soil for Gardening." Late in the fall, just before frost set in, I trenched, two spade deep, about half an acre for gardening—in doing so turned up much yellow sub-soil. In the spring this is to be thoroughly spaded over and manured. Now as it is difficult to get a supply of barn-yard manure without drawing it a great distance, I wish to know if the same amount of money expended in the Lodi Company's Poudrette, would do as well spaded in. If so, it will save great expense and trouble of carting, &c. W. B. B.

Night-soil, which forms the basis of poudrette, contains the elements of fertility many times more concentrated than in common yard manure. We are not able, however, to inform our correspondent what proportion of the Lodi Company's poudrette consists of the absorbing and dessicating materials applied in mixing with the night soil, and lessening its strength. A ton of well made and strong poudrette should be fully equal to ten tons of ordinary manure. (In its extreme concentrated form, it is said to have been equal to thirty loads.) By ascertaining its price, and cost of transportation, and also the cost of the manure and drawing it, our correspondent may perhaps arrive at a tolerable estimate of the comparative value of each.

The experiments which have been made for comparing their value, have greatly varied in results, from two important causes. 1. The poudrette may be of various degrees of richness, for there is nothing but analysis, or careful experiment, to show the purchaser how much foreign matter is added in its manufacture. 2. The manure may be applied so as to give widely different results with the same quantity; if thrown in large lumps upon the ground and imperfectly plowed under, it will not be more than one fourth or one fifth the value of the same manure finely pulverized and thoroughly intermixed with the soil, by repeated harrowing and plowing so as to form a fine, uniform mixture.

Management of Night Soil.—Will you inform me what is a good decomposer of night soil? And if it may be used to good advantage upon carrots, or upon what produce would it be most profitable to use it? In using it for vegetables, would you top-dress it or harrow in? E. M. B. *Glenham, N. Y.*

Night-soil undergoes ready decomposition of itself. Perhaps our correspondent means to ask for a suitable absorbent for composting it. If so, we would recommend pulverized charcoal, or dried peat, or dried turf or loam. The compost thus made may be used advantageously for carrots, and should be well worked into the soil by plowing and harrowing. If top-dressed or only harrowed, it only benefits the top roots. It must be diffused all through the soil.

To Make Macassar Oil.—The ingredients of which it is composed are the most simple and economical. The following, we are told, is the genuine recipe: Take 1 quart of olive oil, or fine lard oil, 2½ ounces of spirits of wine, 1 ounce of cinnamon powder, 5 drachms of bergamot. Heat them together in a large pipkin, then remove it from the fire, and add 4 small pieces of alkanet root; keep it closely covered for six hours, let it then be filtered through a funnel lined with blotting or filtering paper.

That "Model Dairy Farm."

Messrs. Editors—Your publication of the statement of Mr. Coffin's success as a dairyman, seems to have stirred up quite a breeze among the butter makers. While there was but one man in the field claiming the prize, I felt but little interest in claiming it, more especially as Mr. Coffin had already pocketed the premium. When Mr. Shepard entered the field, the sport became interesting; but when the Vermonter came down from his green mountains, with an apparent determination to have the prize, right or wrong, the sport became too exciting to "hold on" any longer without entering my nag for the race,—"so, here goes"

I may as well say in the start, I suppose, that I am not the owner of a farm, but that I have the privilege of superintending one, of one hundred acres. It cost, three years ago, $25 per acre, and was what was called, a "*hard run*" farm. Our cows are full blooded—*natives!* and cost from $25.50 to $35,50 per head.*

As our cows did not all come in until the first of June, we will start at that time with six cows. From that time till the first of January—seven months—we churned 1227 pounds and seven ounces. But during this time we had the milk of the seventh cow one month and a half. But as we have had from ten to fourteen in the family all the time, (never less than ten,) I think the one cow, a month and a half, but a small offset for the milk used in the family.

Now, as the pork and calves seem to be a sort of bone of contention between the parties already in the field, I will drop those items in the account and see how the books stand on the butter and cheese alone.

First, then, we have Mr. Coffin of Dutchess county, who kept five cows:

838½ pounds of butter at 21 cents per lb,	$176.08
Milk in family,	12 84
	$188,92

Which is $37,78⅓ per cow.

Mr. Shepard of St Lawrence Co., is the next claimant, with six cows (and challenges the state to produce six better ones.) He made,

Butter 795 lbs. at 21 cts.,	$166.95
Cheese 135 lbs. at 10 cts.,	13.50
Milk used in family,	6.08
Making,	$186,53

Or $31,09 per cow.

Neither of these men say at what market they sold or what it cost to market their products.

Mr. Arms, of Montpelier, Vt., with seven cows, does *not say how much* butter he has made, though this should be the fair trial point of good cows. But he sold of

Butter, from 22½ to 30 cts. per pound,	$167.43
Cheese at 11 cts.,	138,87
And charges for milk used in family *five quarts per day*, at 2 cts.,	21.40
	$327,70

Or $46,81 per cow.

What his butter would have brought him at 21 cts. should have been stated, and, as he says, "what it cost to market it." He sold near a city market, but had to cart it "*as fast as made*," (we churn every day,) four miles to the depot; whether he did this every day or every week the deponent saith not.

Now for our statement: six cows, same number of months as Mr. Coffin's, butter 1227,07 at 21 cents, $277,77—or $46,29 per cow.

But, in addition to this I may state, that we sold our butter at home with no cost of transportation and at a trifle over twenty-four cents, which would bring the figures up to $49,10 per cow!

So much for butter, alone. Mr. Arms says 100 lbs. of pork cannot be made from the skim-milk of one cow. That depends upon the kind of hogs he keeps. If he keeps the regular *land-shark breed*, and two or three to a cow, he is right. But I can show him the cows and pigs that will do better than that.

One word about the feed. St. Lawrence County it is well known, is a great county for grass. Mr. Coffin of Dutchess Co., says that by treating his meadows to water as he does his pastures, he cuts by the last of June, *three* tons of hay per acre. And in addition to his good pastures and plenty of them, he fed to his cows 20 cart loads of pumpkins.

Our cows had no pumpkins, no roots, and no grain except the bran from 10 bushels of floured buckwheat. They were pastured on an old meadow; some of it so poor the year before, that it was not worth mowing, scarce as fodder was, and what was mowed, yielded scant a *half ton to the acre.* The great yield of butter, I ascribe to the good cows and *our wife*, the good dairy maid. M. Freeman. *Root, Mont. Co., N. Y.*

P. S. Since writing the above, my attention has been called to the fact that Mr. Shepard only threw in his claim for 152 days, instead of seven months. This is taking the best of the season, but still Mr. Shepard comes behind.

His cows bring him for the 152 days for butter, cheese and milk in family $31,09 a head, or 20 cents and six mills per day. Ours, for the 214 days bring us, at only 21 cents for butter, $46,29 per head or 21 cts. 1 mill per day, and at the price we sold our butter (24 cts.) a fraction short of 23 cts. per day.

But start on the 15th of June with Mr. Shepard, and for his 152 days, our butter book shows 950 lbs. During this time, however, we had the use of the seventh cow as before stated, for a part of the time, (she was an old one that we bought for $15, to fat,) but allowing that we milked her all the time and allow us but $7, for milk used in family, and our cows then yield us $33,57 per head; which beats Mr. Shepard $2,48 per head.

Thus, you see, we have beat the "Model Dairy of the Empire State;" left the Green mountain nag far in the rear and come out several lengths ahead of Mr. Shepard who challenged the State!

Our butter book was kept by a boarder in the family, he being entirely disinterested, and the amount each day made set down by itself.

It may not be amiss, perhaps, to state, that the whole amount of butter made from the time the cows began to come in, in April until we dried them off, was 1406½ pounds. So much for *natives!* M. F.

Our correspondent labors under a mistake in calling Mr. Coffin's a "Model Dairy Farm." No such claim has been set up for it; nor indeed, is it a dairy farm at all.

* * *

Products of Dairies.

Messrs. Editors—I find in your paper of Jan. 3, a communication from A. D. Arms, on the products of a dairy of seven cows, from which he made, in butter and cheese, some $46,81 to the cow—the butter selling at from 22 to 30 cents, and the cheese at 11 cents per pound, which is doing well; but I think the man with whom I am boarding, has done better. He has kept an account of what he has sold—cheese at 9 cents and butter at 21 cents—which foots up $325, from eight cows, making no account of the butter and cheese which a family of six persons eat and what they reserve for winter use.

I wish you to invite the attention of farmers to the subject of keeping an accurate account of all farm expenses and income that we may come to some definite conclusion whether farming is profitable or not. F. F. S. *Cicero, N. Y.*

* * *

Pleuro Pneumonia in England.—We are sorry to learn that this fatal disease has broke out in Lord Leicester's celebrated herd of Devons, and that some twenty of the best cows have been lost.

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* Should not the market value of the stock and land be an important point in these investigations to show the largest income from a given capital?

Inquiries and Answers.

Gravel Houses.—I had some thoughts of trying to erect a building in the approaching summer, of gravel and lime, as directed in the little book, entitled, "Home for All," by O. S. Fowler of New York, but on turning over the pages of the Cultivator for 1854, I find in the May No., page 144, that you cannot recommend the plan. I have recently seen several buildings built on the plan, which answer admirably; and as I have abundance of material at a trifling cost, I am unwilling to forego the experiment, except on satisfactory assurance that there is some radical defect in the method laid down for procedure. Would it be asking too much from you or some of your correspondents to favor me with their objections. J. L. *Montreal.* [There is no "*radical* defect" in this mode of building—but failure is very apt to occur from impure and imperfect material, imperfect construction, want of experience, and careful exclusion of water from access to tho walls. These causes are so frequent that we cannot recommend tho general adoption of this mode of building. But as they have evidently been avoided in the cases mentioned by our correspondent, he may confidently carry out his intentions, taking care to secure all the requisites accompanying the successful experiment.]

King Philip or Brown Corn.—*J. F.* This corn, if we remember correctly, was first introduced to the public notice in 1839 or 1840, by the late Gov. Hill of New-Hampshire. It received its original name of "Brown Corn," from a gentleman of that name who first cultivated it on an Island in the Winnipiseogee lake, and whose crops of it produced over 100 bushels per acre. It was at that time introduced into various parts of the northern states, and was, we believe, considered a valuable and productive early variety. It seems from a statement published in the Patent Office Report for 1853, that the "Improved King Philip or Brown Corn," distributed by the Patent Office the last year, was from the same source. Mr. Brown says the improvement was made by a careful selection, for a succession of years, of well filled ears, with cobs having small but-ends, of good length and uniform size, and from stalks bearing more than two ears. Mr. B. plants it very closely—the rows 3 feet apart, and 2 feet apart in the rows. For seed, see advertisement of Wm. Thorburn, in this paper.

Grain Reapers.—*B. T., Va.* A trial was made in Illinois, (if we remember correctly,) between Manny's and Atkins's reapers, and the premium awared equally to each. We do not recollect any trial between Palmer & Williams's reaper, and Atkins'. Doubtless P. & W. can furnish authentic information of the trial. Wo have not had sufficient opportunity of witnessing accurately conducted experiments by these different machines, side by side, to speak with confidence on their relative merits.

Seed Planters.—*H., Waukesha, Wis.* Emery & Brothers of this city, manufacture an excellent drill for sowing small seeds, such as onion, carrots, &c., in drills—price $6. They also make a larger planter on the same plan, which can be used for both large and small seeds, as onions, corn, beans, &c. It will plant either in hills or drills, and may be drawn either by man or horse—price $14. We presume both can be had of H. D. Emery & Co., Chicago.

Wind Power for Farm-Labor.—Our correspondent P. M. Kent, of New Albany, Indiana, (whoso communication was delayed somo weeks by an accident,) inquires for the best windmill for farm purposes—his farm consisting of 2000 acres mostly under cultivation. We do not possess any new information, not already given in back numbers, in relation to Halliday's windmill, which has now been in operation two years, and so far as we can learn, has given good satisfaction. Until it has been well tried by farmers, its precise value cannot become established—and this cannot be the case unless those who lead improvements and enterprize are willing to run some risk of its entire success. For a farm as large as that of our correspondent, perhaps a steam-engine may answer the best purpose.

Rot in Plums.—I have about 25 fine plum trees, which were loaded with plums up to July, last year, when they all rotted and fell off. How will the trees be affected by this, in their bearing this year? If badly, what can be done to, in some measure, remedy the evil? W. F. Collins. *Toronto, C. W.*

We do not know an efficient remedy for the rotting of plums on the tree—neither do we know that the loss of the crop in one year has any influence the following season. We should be glad to have clear, well-observed facts, from our correspondents.

Osier Willow.—A correspondent wishes to know who purchases the osier willow—how they should be sorted, and the price of each sort. Perhaps some of our readers can furnish the information.

Lima Beans.—*R.* We think Lima Beans would do well in Oswego county. The seed can be obtained at any of the seed stores in this city and most parts of the country.

Alkaline Salts.—*W. W. R.* We have no means of answering your question. We gave the analysis as we found it in one of our foreign journals.

Indian Millet.—*P. W.* This is a tropical plant, and would not be likely to mature in most parts of this state, and if it would, we know of no advantage likely to be derived from its introduction. Neither for man or beast, can it compare with wheat, rye, oats and corn. We should like to hear, however, from any of our readers who may have grown it, and where the seed can be had, as we infer that our correspondent would like to make a trial of it.

Millet.—How early should millet be sown, to enable me to cut it for hay, and get it off the ground before the fall rains come on—say by the middle of August? F. D. [Sow early in May. For directions for culture of Millet, see Co. Gent. vol. 5, p. 214, or Cult. for 1855, p. 148.]

Rice Meal.—Please be so kind, as to give your experience in regard to *rice meal* for the dairy. Whether it is most adapted to produce milk or flesh. If milk, does it produce a large secretion, or is the quality improved without increasing the quantity? Also would it be more economical feed than Indian corn meal at one half the cost per hundred? A Subscriber. *Pawling, N. Y.* [We have no experience in the matter. Perhaps somo of our readers can enlighten our correspondent.]

King Philip Corn.—The notice in Co. Gent. No. 6, has brought me a greater number of applicants for King Philip corn than I expected. I can supply these and would send to others if I had the seed, but my supply is exhausted. W. E. Boise. *Blandford, Mass.*

Bottom Land.—Having a 25 acre strip of second bottom land situated in *Ohio*, I make inquiry through the medium of your paper as regards tho best mode of treating it this coming season, in order to improve the land and receive large crops. The soil is a gravelly loam. The past season it was not cultivated—the year before a clover sod was turned under, and a crop of corn taken from it, tho yield 30 bushels to tho acre. If some of your readers will answer the above quories, they will confer a favor on A Subscriber.

Japan Pea.—Perhaps you or some of your many correspondents, can inform me whether any reliable experiments have been made with the Japan pea, to determine its value as a food for stock? Hogs seem to be very fond of it, and I observe cattle eat the hulls with a good relish, but how far it possesses any value as a nutritious and economical food for any kind of stock, is the question I shall be glad to have answered.

It is easy of cultivation, very prolific, and from the density of its shade keeps the ground clean of weeds, advantages which would render it a desirable plant to the farmer, provided it contains the elements of a good food for stock. F. D. *New Richmond, O.*

Grasses for Lawns.—Can you, or any of your correspondents, tell me what grasses are best to sow for a "lawn," upon the intervale land of Connecticut river. I have somewhere seen redtop and white clover recommended for some localities, but have doubts about its being the best for this vicinity. Levi C. Skeele. *Chicopee, Mass.*

Treatise on Insects.—*B. T.* The best work, as yet published, on destructive insects, is Harris's second edition—the price is probably about two dollars. Dr. Fitch has not yet written any general work of the kind.

Seeds.—*O. M. S.* You will see that we have adopted your suggestion.

Chess.—*G. C.*, *Lancaster*, *N. Y.* In the case mentioned, you undoubtedly destroyed the vitality of your wheat, by soaking and freezing—the chess, being more hardy, survived the process, and produced the crop—or perhaps the chess was produced from seed previously in the ground. That chess grew where wheat was sowed, only proves that the wheat was destroyed—not that it was changed to chess.

Sowing Arbor-Vitæ.—Will you please inform me through the Cultivator, how the seed of the "Arbor-Vitæ," can be made to germinate, when sowed. Please state also how the ground should be prepared, etc. T. M. *Mastersonville.*

Prepare a soil by mixing sandy loam with peat or leaf-mould, incorporating them well together. Sow the seeds about one third of an inch deep, by first strewing the seed on the bed, and then sifting the soil over to the required depth. The soil must now be kept moist till the seeds sprout, which if necessary may be effected by spreading on the bed, a piece of canvass, after watering. The young plants must be shaded from the sun. This may be done by a low canvass awning, by the shade of a high fence, or of a building, or by placing boards east and west, inclined on their edges from the sun, and wide enough to shade each double or triple row across the bed. The boards are nailed to inclined stakes to hold them to their places. The arbor-vitæ will grow readily the first year. In a year or two, the plants may be transplanted to rows.

Cellar for Roots.—Can you or some of your readers inform me whether it would be possible to construct a cellar, on level sandy land, without digging more than 2 or 3 feet, the cellar to be entirely separate from other buildings, where root crops for stock, and also cabbages, onions, and all potatoes not wanted for use in winter, might be kept. If any of your readers can give the desired information I shall be much obliged. H. *North Lawrence*, *St. Lawrence Co.*, *N. Y.*

The cellar should be deep enough to admit of walking erect in it, otherwise it will prove extremely inconvenient in passing in and out. If the necessary drainage can be given, it might be dug three feet deep, and the remainder of the required height protected by a moderately sloping embankment outside. It should be covered by some building, both for security from frost, and for economy; for the roof which must be made, may as well cover an apartment above. If straw or hay should be stored in this apartment, it would afford secure protection from cold. But if a *cheap* cellar only is intended, it might be built with dry stone walls, slightly inclining outwards, and the whole might be covered with a pole roof, and a thick coating and thatch of straw.

Corn Planters.—*S. H. W.* Wakefield's Corn Planter is for sale in this city, by the dealers in agricultural implements—price $5. "Which is the best corn planter in use at present?" This is a difficult question to answer, and one which we shall not attempt to decide.

Grain Reapers.—*R. A. Gesner*, *Salem*, *Oregon.* Without presuming to say which is the best reaper under all circumstances, we can inform our correspondent, that Atkins' Self-raker, Manny's, Hussey's, and McCormick's, are all popular machines, and widely used, and either would probably succeed well. The freight to Oregon would be least by sailing vessel, but we are unable to say what it would be.

Yellow Clover.—The plants enclosed in the letter from Geo. W. Philip, of Leeds, Greene Co., N. Y., were nearly reduced to powder before they reached us, but enough remained to show them to be (probably) the Yellow Clover, (*Trifolium procumbens*,) a small plant which is becoming gradually introduced into meadows and pastures. It is not generally regarded as of much value, but has in some instances been mixed with seed for lawns, for the sake of variety. On the lands of our correspondent it appears to be rapidly becoming a troublesome weed, extending over his farm, and being mostly rejected by cattle, while other grasses are closely eaten. It is annual or biennial, and might doubtless be easily eradicated by a judicious farm rotation in connection with clean culture.

Absorbents for Putrid Matter.—Will you inform one who enjoys a hearty intellectual feast in the perusal of your valuable weekly, how to deodorise offensive matter,—the contents of sinks, etc., in view of making a compost to be applied next fall, or the spring following. Arthur de Wint. *Fishkill Landing*, *N. Y.* [Sink-water, slops, &c., contain a mixture of various ingredients, in different degrees of decomposition; and nothing is a better general absorbent for all these than charcoal. Probably the best way of making the proposed compost, would be to deposit in the compost vat or heap, a layer of well dried peat, (which possesses something of the characteristics of charcoal,) on which the slops are to be discharged. Additional layers of the peat are to be added, as each becomes charged with the slops. A portion of charcoal, applied frequently, would assist the process. And to destroy all the offensive odor, as the process advances, sprinkle the heap frequently with powdered lime. If peat cannot be had, *dried* turf will answer an excellent purpose, the lime being often sprinkled over it, as successive layers of the turf are added. Charcoal, as before, would be an excellent addition.]

Removal of Fruit Trees, &c.—Will fruit trees do as well, as growers and bearers, in northern Ohio, (Ashtabula Co.,) transported from New-Jersey? Also what is the effect upon the fruit, to graft sweet into sour or sour into sweet? (old trees.) E. K. Clark. *West Andover, O.* [Healthy and thrifty trees, well packed, and safely carried from New-Jersey to Ohio, will do as well as those raised there. Every thing, almost, depends on the treatment the trees get after setting out. We have known the *yellows* disseminated by diseased trees from eastern states, and our correspondent, if procuring *peach* trees, should satisfy himself well on this point. The stock often slightly *modifies* the character of a fruit, without destroying any of its essential qualities. We cannot speak from distinct experiments, of the changes wrought in apples by a sweet or sour stock—it is evidently very small, as Spitzenbergs and Rhode-Island Greenings, are always Spitzenbergs and Greenings, wherever they may be grafted.

Grape.—Will the new White Muscat of Alexandria succeed well and become profitable in open culture? O. E. Clark. [It needs not only a grape house, but succeeds best with fire heat. Open air will not answer at all.]

Barren Grape Vine.—We have a seedling grape vine that has blossomed for three successive years, but has never matured fruit. Is there any remedy for this barrenness? M. F. *Root*, *N. Y.* [If the fruit *sets*, but does not "mature" or ripen, as our correspondent states, we cannot assign the cause without further information; but if the fruit never sets, the flowers are probably imperfect, and may, or may not be fertilized artificially, according to the nature or character of this imperfection.]

Hay Press.—Can you or some of your many readers, inform me about the hay press, shown at the Albany County Fair of last fall, by a Mr. Seeley or Potter? I do not recollect which—where they may be bought, and how they work *as* a hay press. S. W. A.

Stone Picker.—Will you please to inform me through your paper, if there is a machine now in use for picking up stone; and if so, does it do the work effectually? What is the cost? Where can it be found, &c.? Any information which you can give with regard to it will be thankfully received. Sub-

Curing Hams, &c.—*H. W.* You will find the directions you want in relation to curing hams, beef, &c., in the current vol. of the Co. Gent., p. 79, and also in the March no. of the Cultivator.

Vermont Wind Mill.—*J. J. Green.* The power of this mill to operate a threshing machine, circular saw, &c., has not, to our knowledge, been tested.

.Farm Implements—*S. S. B.* We can send you Mr. Thomas' work on Farm Implements, by mail, post paid, for $1.

Tea Wheat.—*J. M.* This wheat can be had at the seed stores in this city, and we presume of R. L. Allen, 189 Water Street, New-York.

Crowell's Thermometer Churn.—*W., Caldwell, N. J.* This churn can be had at the agricultural warehouses in this city, and we presume also at those in New-York and Philadelphia—price $3.50 to $6, according to size.

Grasses, &c.—*G. W. P.* We are unable to furnish the information you desire in relation to certain Grasses. The couch grass and quack grass are the same. You will find directions for the culture of *Millet*—its product and use in the Cultivator for 1855—pages 59a nd 148. Mr. Thorburn of this city has the seed.

Millet, &c.—I want to procure a few bushels of Millet and penny grass seed. Will you have the goodness to inform we whether they can be had in Albany, and at what price. S. M. [Millet can be had in this city at $3 per bushel. Penny grass is new to us.]

Rape Seed.—How much rape seed does it require to sow an acre of ground, and what does it cost? F. [When sown thick for feeding, a peck may be used, but when drilled or sown thin for harvesting, two to three pounds is sufficient.]

Raspberries.—*W. B. B., Bloomfield, N. J.* Most of the nurserymen have all the varieties of the Raspberry. Dr. I. M. Ward of Newark, also, we presume, could furnish the plants you want, and give you in addition the best directions as to their management.

Oregon Peas.—*A. P.*—We do not know where these are to be had

Mills.—I wish to get a chopping mill (Bur's,) and saw mill, that will cut boards, scantling, &c., from, say 2½ feet logs, to run by horse power. Can you or some of your readers inform me through your paper, where they can be had, and the price? C. B. *Douglasville, Pa.* [We cannot.]

Seed Corn.—Where can the Early Canadian Corn, be procured—also the Tuscarora corn, with the price of both per bushel? H. [Our seedsmen should answer such questions, as we can only refer to the seed stores for the information desired.]

Change of Seed.—Will you please inform me through your Co. Gent., whether it would pay to bring seed wheat from Canada to this country. If any of your subscribers have tried the experiment, and will let the result be known, they will confer a favor to a young farmer. J. Thomas. *Kent., Ct.* [Will some of our correspondents who have had clear practical experience in this matter, give us an answer.]

scriber. [We saw a notice of such a machine some years ago, but whether it was ever made to accomplish the purpose for which it was intended, we are unable to say.]

Michigan Double Plow—*R. A. G., Oregon.* This plow turns under weeds, stubble, &c., in an efficient manner. It will run to different depths, according to its size and the strength of team, varying from 9 to 15 inches. A large plow, running a foot deep, requires six horses or three yoke of oxen, to do the work in the best style.

Apples.—We have received two varieties of very fine apples from Mr. S. Wilbur of Chatham, with the request that we would furnish their names; but we have not been able to identify them.

Inquiry about Horses.—Can you or any of your numerous subscribers, tell me how I can cure a horse of stiffness. I have a very valuable young horse; by driving him last winter, either by cold or water founder, he became very stiff. I kept him on pasture last summer, and have not worked him since; but he don't get any better. Some experienced horse dealers say it is chest founder, and there is no remedy for it. Possibly some of your readers may know of some remedy that would help him. J. J.

Fistulous Withers.—I have a horse under my care, that has fistulous withers. The tumor has broken, and is discharging. My object in writing is to inquire through your valuable paper for a remedy for the above disease. A Subscriber. *Fallston, Pa.*

Wakefield's Planter.—In your last issue, I notice an inquiry from one of your correspondents, for a corn-planter. Allow me just to say that Wakefield's planter was partially introduced in our vicinity the past season, and gave good satisfaction. There is no doubt they will do the work well, where the land is tolerably feasible, and will drop as even as almost any experienced person will by hand. There can be no doubt but what they will be extensively used until something better is invented. If there is any objection to them, it is that they will not drop pumpkin seed with the corn, and consequently this will need to be a separate operation, (unless we do away with our Thanksgiving,) and will not drop corn that is rolled in plaster, or any other mixture that is not perfectly dry, and will leave the seed clean. W. J. Pettee. *Lakeville, Ct.*

Hydraulic Rams.—*R. A. Gesner, Salem, Oregon.* Three feet fall, in thirty feet, as in the instance mentioned, will be ample to operate a water-ram to advantage, and raise the water to fifteen feet as proposed, or to any other desired height, if it be five times this elevation. The ram will not be likely to succeed however, with a driving-pipe less than one inch in diameter, and the quantity of water should be at least half a gallon per minute. The discharge pipe need not in this case be more than half an inch internal diameter.

The quantity of water elevated is as many times less than the amount furnished by the spring, as the elevation of the discharge pipe exceeds the fall of the driving pipe, with friction also deducted. If, for example, the drive-pipe descends three feet, and the elevation is thirty feet,—a spring furnishing one gallon per minute, will elevate one-tenth of a gallon per minute to the height named, or one gallon in ten minutes, deducting the amount of friction. The latter usually varies from 10 to 20 per cent., according to the height. Calling it 15 per cent. in this instance, the real quantity of water driven 30 feet high, would be about 8½ gallons every 100 minutes, or nearly one-twelfth of the whole water of the spring.

As the power of the ram depends on the *momentum* of the descending cylinder of water, there should be a longer drive-pipe where there is a greater head to be overcome.

We are not able to give the exact price of rams, which varies with the size; but we think that $20 will pay for a good one of the smaller or medium size.

How to Make Carrot Coffee.

MESSRS. EDITORS—I have never seen anything in the Country Gentleman, respecting carrot coffee, and will therefore give you the mode in which it is prepared in my family.

We clean the carrots, and cut them into pieces about half an inch square; then put them into a tin under the stove or in the oven, where they will brown and dry hard enough for grinding.

Then grind and use about one part carrots to two parts coffee. It makes both a wholesome and agreeable beverage. Care should be taken not to let the carrots burn while drying. We dry them hard enough to grind easily. If the carrots are good, we think the proportions of carrots and coffee mentioned above are quite as palatable as all coffee. Some use a larger proportion of carrots, and some make their coffee entirely of carrots. C. J. C. *Michigan.*

A New Method of Preparing Mustard.

EDS. CO. GENT.—I send you a very good receipt, to prepare mustard, far superior to the common way. When prepared in this manner, it has a very pleasant and agreeable taste.

RECIPE.—Powdered astragon,	½ ounce.
Mustard,	1 lb.
Sugar,	1 ounce.
Salt,	1 "
Black pepper,	¼ "
Cayenne pepper,	¼ "
Olive oil,	4 "
Tincture of allspice,	½ "
" " Garlick,	¼ "

Vinegar, a sufficient quantity to make it of a proper consistence. Then bottle, and let it stand for a few days before using. J. F. D. L. *Greensborough, Maryland.*

Product of our Cow.

MESSRS. EDITORS—As it is becoming somewhat fashionable to report through your columns, the products and profits of cows, in various parts of the country, I have a mind to tell the world what *our cow* did for us the past season. We kept but one, and my wife thinks she is a good old cow. I paid $35 for her in the spring of 1850, when she was six years old. Consequently she was eleven years old last spring. The man of whom I bought her, said she had a slight tincture of Durham blood in her veins. She is as white and clean as a snowdrift, and has all the marks of a good cow, so far as I am able to judge. She dropped her calf April 9th, 1855, and as soon as there was sufficient grass for a good bite, she began to pour out her milk by the pailful. I have just been looking over our butter account for the past season, and find that it foots up 176 lbs. 10 oz., which was worth, in Hartford, at least 25 cents per pound. Having had a great deal of company during the summer, we of course used no small quantity of milk in the family,—say two quarts per day for the whole season, which is by no means a large estimate, though we kept no account of it. The income from this cow may be stated as follows:

176 lbs. 10 oz. butter, at 25 cts. per lb.	$44.15
2 qts. milk per day for 210 days at 4 cts.	16.80
Calf,	10.00
	$70.95

I say nothing of the value of the skim milk given to the pigs.

I do dot pretend to boast, or to exclaim, "Beat this who can!" or that my gun "is a *leetle* louder than anything as yet." Seeing no necessity for this, I will merely add, that the cow was fed with nothing but corn-stalks during the winter, with hay before and after calving, and a rather poor pasture during the summer. Whatever others may say or think of *their* stock, I am satisfied that I have a good old cow. WM. STORER. *West Hartford, Ct.*

Fruit Drying Apparatus.

In answer to our correspondent P. P. of Portland Oregon, in relation to this apparatus, figured and described by us a year or two since, we can only say, that the size of the house, height, breadth of shelves, &c., must depend entirely on the amount of business required to be done. The *time* required for drying, will vary with the strength of the current of hot air, and the smallness of the pieces of cut fruit. If cut quite small, two hours would dry them thoroughly; if larger, four to six hours might be necessary. Twenty shelves on one side, each two feet square, would hold about two bushels of the freshly cut fruit, and would perhaps dry five or six bushels a day.

If the shelves were a foot apart, the height of the building for 20 shelves on a side, would be over twenty feet, and the drums a little over two feet in diameter. The height may of course be increased to conform to any increased number of shelves; and although we would not recommend the shelves to be wider than two feet, their length might be increased to several feet, if greater capacity is required.

It is of course of the utmost importance that the purest air should be admitted to the shaft of shelves. A large portion of the dried fruit now sold in market, is injured or spoiled by the smoky or impure air of the rooms in which the drying is accomplished. The hot air in this apparatus is obtained from an air-chamber, surrounding a stove and drums, precisely like those of a hot air furnace. Where mineral coal is cheap, one of Bushnell's portable coal furnaces for warming dwellings would answer, the smoke-pipe passing outside of the shaft, and the hot-air pipe opening directly under the shelves.

We are not able to give any directions for its construction, more minute than these. A common carpenter, who can only follow working drawings and given dimensions, cannot be expected to make such an apparatus; an ingenious, thinking man only can construct one, until more experience is attained as to its best form and requirements. The cost will vary with the perfection and finish of the work—one hundred dollars ought to make a good apparatus of the smaller size, besides the furnace, which if portable might be used in autumn for drying fruit, and in winter for warming a dwelling.

Bark Louse—Inquiry.

Will you or your valuable correspondent Dr. FITCH, inform your readers, what material should be applied to the root of fruit trees, in order to destroy the Bark Louse. Almost all the trees in this section, are suffering from this complaint, brought on, I think, from want of cultivation. I believe proper cultivation would in a few years lessen, if not do away with the louse, but I believe some 'multum in parvo' remedy might be applied to the roots, that would cause them to scale off. I have tried the rough clinkers from the smith's shop, burying them among the roots, but only late last season. If they are known to be good to the trees, would it not be better to crush them and use them on the surface, or would not the sweepings of the smith's shop be useful in such a case? J. H. H. *Nova Scotia, Feb.*, 1856.

"Value of Pumpkins for Milch Cows."

I have fed pumpkins to my milch cows, the past fall and thus far this winter, in small quantities—not more than a peck each, per day. Their feed in other respects does not vary very materially from what they have had in past seasons, but one thing is certain, that they give more milk, and the butter has a sweeter taste than in past seasons. This result we attribute to feeding pumpkins. We consider them as next to carrots in value for feeding milch cows in the winter. WM. E. COWLES. *Canton, Ct.*

Extracts from Correspondence.

Correction.—In publishing a short article from my pen, in your paper for the present month, on the subject of *Broom Corn*, your types have made a slight blunder, which, if suffered to pass uncorrected, may possibly lead to an error in the construction of a machine for cleaning off the seed—if, indeed, any of your readers should be induced to follow my directions in that matter. The article, as printed, directs that the *teeth* on the cylinder should be *ten* inches in length; whereas, I wrote *two* inches. An important difference, as any one would soon learn, who should attempt to use a machine with teeth even one-half as long as ten inches. Please correct the error, and I will endeavor to write plainer next time. Wm. Storer.

Healthfulness of Iowa.—Permit me to say to your correspondent Mr. Colburn, not to indulge unnecessary fears concerning the health or life of the Hawk Eyes. Hundreds, nay thousands will say that they have much less of colds, coughs, or sickness of any kind, than when residing in the East; and having spent some fifty years in that region, and five in this, I claim to know something of the matter. We have during the year, at least two fair days here to one in the Atlantic states, and not to exceed one-fourth of either snow or rain that falls in Vermont. I merely make these remarks from the belief that erroneous ideas are entertained concerning the salubrity of the climate of Iowa. J. W. *Bradford, Iowa.*

Splitting Boulders.—An improvement on your plan of splitting boulders, is—after you get the rock very hot, remove the fire and pour on a few buckets of cold water. I have tried it and never knew it to fail. J. J.

Is Plaster Injurious to Stable Floors?—I wish to offer a remark upon a portion of the article entitled "Answers to Inquiries about Manures," in the Co. Gent. for Feb. 7. The language I refer to is as follows:—"Where gypsum is cheap, we think it might pay to scatter it in stables," &c. The writer may perhaps not be aware that plaster used upon stable floors, causes a rapid decay of all kinds of timber commonly used for floor plank and sleepers. At least I have seen a statement to that effect in some agricultural journal, and have been so informed by a somewhat noted farmer of this county, who claimed to speak from experience. Perhaps the matter is worthy of a passing notice. O. M. Slosson. *Pompey, N. Y.*

Keeping Turnips.—In your article on Turnips and other Root Crops, you say the white turnip cannot be kept in good condition after the first of Jan. That depends much upon the cellar. Mine is dry and warm, and the turnips are good yet; and had we not so much of the Yankee go-ahead in us, but that we could afford the time when taking off the tops, to cut so deep into the turnip as to prevent its sprouting, and to take off the tap root too, the turnip would keep about as long again as it does in the ordinary way of managing them. On my dry sandy land they may be kept in holes till April, almost as good as the day they were put there. I am glad to see such articles in your paper. We must raise more room and we must be urged and crowded to it. D. B. R.

Black Sea Wheat.—Your correspondent, Miller, of Battenville, N. Y., must not try to discourage the growers of Black Sea Wheat, by saying that it flours but "little better than Canada corn," till he is sure he is master of his trade. Now sir, I am not a miller, nor have I any interest in any mill; but then I have been in the practice of *grinding bread* for upwards of forty years, and claim to be something of a judge of the article; and I can assure Miller that if he will call at Brown's mill, in this town, he may learn how to flour Black Sea wheat, a "heap" better than "Canada corn;" and if he will call on me, I think my wife can show him as good (Black Sea wheat) bread as he ever saw made from any spring wheat. Farmer. *Root, N. Y.*

Agricultural Societies.

United States Ag. Society.—A meeting of the Executive Committee of this Society, was held in Philadelphia on the 28th ult., the President, Col. Wilder, in the chair. The object of the meeting was to arrange certain preliminaries for the next annual exhibition, which has been fixed to take place in Philadelphia, commencing on the 7th of October, and which it is proposed to conduct on a scale of unexampled liberality and splendor. The citizens of that city have raised a guarantee fund of $15,000, and appointed a committee of forty to act in concert with the officers of the Society in carrying out the plan of the exhibition, which is to embrace, as objects of the exhibition, horses and horned cattle, swine and sheep, agricultural implements, cereal and vegetable products, poultry and native fruits and wines, and for which from $12,000 to $15,000 was appropriated as premiums. A grand banquet, in which ladies are to participate, was agreed upon. The exhibition is now as general as those of our State shows, and from its central location, will undoubtedly far exceed anything of the kind hitherto got up in this country.

Provincial Ag. Society of Canada West.—It is proposed to hold the next exhibition of this Society at Kingston, simultaneously, or on the week preceding or following our State Show at Watertown, as it is believed that the attendance of both will thereby be greatly increased. The distance from Watertown to Kingston is only about 45 miles, by railroad and steamboat. A spirited public meeting was held at Kingston last week, to concert measures for the accomplishment of this object, and to aid the Society in getting up such an exhibition as will be creditable to the Province.

Vermont State Ag. Society.—The annual meeting was held at Middlebury on the 6th inst. The following were appointed officers of the Society for this year:

President—Hon. F. Holbrook, Brattleboro.

Vice-Presidents—E. Hammond, Middlebury; H. S. Morse, Shelburne; Henry Keyes, Newbury, and J. W. Colburne, Springfield.

Directors—E. B. Chase, Lyndon; N. Cushing, Woodstock; Geo. Campbell, Westminister; Jacob Scott, Montpelier; John Gregory, Northfield; J. W. Vail, Bennington; H. H. Baxter, Rutland; John Howe, Jr., Brandon; and B. B Newton, St. Albans.

Cor. Secretary—J. A. Beckwith, Middlebury.

Rec. Secretary—J. H. Crosby, Woodstock.

Treasurer—Edward Seymour, Vergennes.

Iowa State Ag. Society.—The officers of this society for this year, are,

President—Thos. W. Clagett, Keokuk.

Vice President—Le Grand Byington, Iowa City.

Cor. Sec'y—Wm. Duane Wilson, Fairfield.

Rec. Sec'y—J. H. Wallace, Muscatine.

Treasurer—J. G. Gordon, Muscatine.

The next State Fair, by a vote of the Board, is to be held at Muscatine, commencing on the second Wednesday of October, 1856.

Lake Champlain Valley Hort. Society.—The annual meeting of this Society was holden at Burlington, Feb. 19. After the Report of the Executive Committee, the following officers were appointed for the coming year:

President—John Wheeler, Burlington, Vt.

Vice Presidents—S. E. Howard, Chittenden Co., Vt.; R. T. Robinson, Addison Co., Vt.; A. O. Aldis, Franklin Co., Vt.; J. M. Ketchum, Rutland Co., Vt.; J. Battey, Clinton Co., N. Y.; W. C. Watson, Essex Co., N. Y.; Buel Landon, Grand Isle Co., Vt.; J. Torrey, Burlington; B. B. Newton, St. Albans; W. H. Hoyt, St. Albans; J. W. Bailey, Plattsburgh.

Sec'y & Treas.—W. C. Hickok, M. D.

Standing Fruit Committee—Joseph Torrey, J. Battey, Albert Chapman, C. Goodrich, J. W. Bailey.

Prof. of Entomology—W. C. Hickok.

Prof. of Botany—J. Torrey.

Notes for the Month.

Fruit Crop at the West.—The thermometer throughout several of the western states, has sunk the present winter down to 20° to 40° below zero. As an inevitable consequence, the peach crop in that region is entirely destroyed. Cultivators there, generally, fear that large numbers of their *trees*, even including the *apple*, are killed. We hope the result may be more favorable. Last winter the thermometer sunk to 26° to 36° below zero in most parts of western New-York, killing the entire peach crop, and turning the wood above the snow line to a *dark brown*. In the spring, any one could readily ascertain the depth the snow had been at any peach tree, by cutting into the wood—below, it was *white*, above the color of *tobacco juice*. We invariably advised all to let their trees stand till the result should be manifest. A few, in despair, cut their trees down, or rooted them up, and of course lost these. Those which stood, all live, with scarcely an exception. The apple, plum and pear shoots were dark brown, some almost black. Yet nearly all lived and grew finely.

There were however, two very favorable influences. The previous season's severe drouth ripened the wood early, and fitted it for enduring severe cold. The following spring was cool and moist and prevented the disastrous results which must have accompanied a hot and dry spring.

Western trees are more succulent in growth, and the spring usually comes on suddenly warm. These do not favor the success of trees injured by intense cold. But we hope our western friends will *wait*. Rare specimens, if *shaded* from the sun immediately, may survive.

In *western New-York*, the thermometer sunk to 12° below zero (at Macedon) on the morning of the 15th of 2d month, (Feb.) About one half of the peach buds are killed, leaving enough for a plentiful crop, if nothing else happens to them. The winter had been uniformly cold previously. Had there been warm weather before, most would probably have perished. Clouds obscured the sun in the morning, and the temperature rose gradually, which also were favorable.

Death of Lemuel Hurlbut.—This gentleman died at his residence in Winsted, Conn., on the 19th inst., after a protracted illness of more than three months, at the age of 70. Mr. H. was well known as a breeder of Devon cattle, throughout the country. He took a deep interest in agricultural improvement, and was present at nearly all the State Fairs which have been held in this state and New-England, where he had formed a most extensive acquaintance with gentlemen from every section of the country, by whom his loss will be sincerely lamented.

☞ We are indebted to the Hon. M. P. Wilder, President of the Society, for the *Journal of the United States Ag. Society for* 1855. It is a handsome volume of 264 pages, illustrated with a beautiful view of the Show Grounds at Boston, and portraits of several of the prize animals. About thirty pages are occupied with the proceedings of the Society at its annual meeting in 1855, and the remaining portion of the volume is devoted to a history of the transactions connected with the late exhibition at Boston.

Importation of Sheep.—George Hartshorne, Esq., Locust Grove, Rahway, N. J., has just received seven South Down ewes from England, four of which dropped lambs on the voyage; and five Cotswold yearling ewes. These were selected from the very best flocks in England, by Mr. Hartshorne's brother-in-law, Anthony G. Robinson, Esq., London. Mr. A. had formerly received two South Down bucks—one from Jonas Webb's, and the other from the Duke of Richmond's flock.

New Facts in Fruit Culture.—The proceedings of the Fruit Growers' Society of Western New-York, containing a large fund of new information on fruit culture, and more especially in relation to the successful growth, management, and sale of fruit for market, has been just published, and will be sent to all members, and also free to all others who shall remit 30 cents in postage stamps to H. E. Hooker, Secretary, Rochester. The volume contains 140 octavo pages, and is full of facts of the most interesting and valuable character; a limited number of copies having been printed, orders should be sent early.

Albany Seed Store.—We take pleasure in calling attention to the advertisement of Mr. Thorburn, who has been well known for more than twenty years as a reliable seedsman. It will be seen that beside the usual variety of field and garden seeds, he has several that have been of late much inquired for, such as King Philip Corn, White Russian Flax, the Christina and Orange melon, &c.

Impromptu Cattle Show.—There was a volunteer exhibition of fat cattle at Northampton, Mass., on the 19th ult., at which were present 54 pairs of oxen and five cows, all fattened, it is said, within one mile of the court-house in that town. The *Amherst Express* says that the largest in number, the best in quality, and the heaviest pair (weighing 5,052 pounds) were exhibited by Nathaniel Day & Brother. They presented 20 yoke, of an aggregrate weight of 77,793 pounds—and an average weight of 3,889 pounds per pair. Elisha Graves, six pairs; aggregrate 24,021; average 4,003. William Strong, six yokes; aggregate, 19,680; average, 3,280. Capt. Samuel Parsons & Son, four pairs; aggregrate, 13,925; average 3,481. Samuel Day, four pairs; aggregrate 14,436; average 3,609 lbs. Z. Clapp & Sons, three pair; aggregate 10,040; average 3,346. J. S. Parsons & Son, 4 yokes; aggregate, 13,442; average, 3,360. Lyman Kingsley exhibited a cow which weighed 1,606 pounds, and Henry Graves one of 1286 pounds, which gives at present 16 quarts of milk per day.

A Vermont Farm.—It would seem that there are some large farms in Vermont, as well as out West. The papers furnish the following statement of the products of the farm of Mr. A. M. Clark of St. Albans, for the year 1855:

7176 bushels grain, estimated at	$5,125.00
3230 lbs. wool, nett	1,344.00
Cattle, sheep, and horses sold,	1,236.00
Received from a dairy of 45 cows,	1,350.00
	$9,055.00

Hay enough is cut on said farm to winter his stock, consisting of 671 sheep, 123 head of cattle and 56 horses; and the stock sold does not exceed the growth and increase.

Cattle Sales.—Mr. Enoch Marks' noble Short-Horn Cow Ringlet, whose portrait we gave in last week's Country Gentleman, was purchased last summer by Mr. Marks from Dr. Herman Wendell of this city. Matchless, a beautiful four-year-old,—calf of Ringlet,—was recently sold by Dr. Wendell to Mr. William Balkwill of Canada West. He has also within a few days past, sold to Henry Roseboom, Esq., of Otsego Co, N. Y., roan bull Hampton, (5700) got by Meteor (11811) out of Matchless—to T. S. Grundy, Esq., of Washington Co., Kentucky, white bull Second Meteor, (956 A. H. B.) got by Meteor (11811) out of his imported cow Lady Liverpool—also heifer Daisy VIII—and to D. B. Holcomb, Esq., of Chester, Mass., red bull Derby, got by Dr. W.'s imported bull Lord Ducie (13181) out of cow Lady Bird—also to E. Avery, Esq, of Clintonville, Oneida Co., roan bull Earl Carlisle, got by imported Lord Ducie (13181)—out of Duches of Exeter.

The American Grape Grower's Guide. Intended Especially for the American Climate. Being a Practical Treatise on the Cultivation of the Grape Vine in each Department of Hot House, Cold Grapery, Retarding House, and Out-door Culture. With Plans for the Construction of the requisite Buildings, and giving the best Method of heating the same. Fully illustrated in every Department. By William Chorlton.

A Complete Manual for the Cultivation of the Cranberry, with a Description of the Best Varieties, By B. Eastwood. Illustrated by several Plates.

The above are from the press of Messrs. C. M. Saxton & Co., No. 140 Fulton Street, New-York. Mr. Chorlton is recognized as an authority on the subject of Grape-Growing, and his book will be found of no little practical assistance to the amateur. It is an enlargement of his "Cold Grapery," and treats the subject very thoroughly in this and its other modifications. The subject of the latter book—the Culture of the Cranberry—has been attracting considerable attention of late, and we presume that Mr. Eastwood's "Manual" is more full and comprehensive than any that has before appeared.

Fertilizers.—Our readers must be hard to please, if they cannot find, among the list of artificial fertilizers advertised in this paper, something that will suit their crops and soils. Among those most lately introduced, is the "Muriate of Lime," for sale by James Gould, Boston, and Wm. B. Bogle, New-York, which is highly spoken of by several who used it last year. Then there is the "Fish Guano," for sale by S. B. Halliday, Providence, R. L. Allen, New-York, and R. H. Pease & Co., Albany—the "Poudrette and Tafeu," by the Lodi Manufacturing Co., New-York—the "Ammoniated Superphosphate of Lime," by Mr. De Burg, Williamsburgh—and Peruvian and Ichaboe Guano, Bone Dust, Plaster, &c., &c., for sale by various other houses. That all these manures have in some instances proved useful, there can be little doubt, but who can tell to what crops and under what circumstances they can be most economically employed? To settle these points, we need a State Laboratory and Experimental Farm, conducted by persons whose knowledge, integrity and carefulness, will give authority to their decisions.

Another California Wheat Crop.—The California State Tribune says, that a well known farmer on Cache Creek in Yolo county, has a small patch of land containing forty-five acres, from which he produced the last season a crop of wheat averaging seventy-three bushels to the acre, all of which he sold at three cents a pound, producing the handsome sum of $5,913.

Facts Altered to suit Theory.—It was said of the celebrated Buffon, that he formed his *Theory of the Earth*, by indulging his poetical fancy; and then went to work industriously to collect such facts as he could find to support it—rejecting of course, those that did not suit him. We laugh at such an absurd process of reasoning at the present day, now that such philosophy has become obsolete, and when every one is so earnest after simple, untwisted, undistorted truth.

But we have some "philosophers" now, that are no better, and who have not even the plea of a poetical theory, but who are actuated merely by mercenary motives, such as the fees of "consulting agriculturists," &c. The papers state, that the "professor" who made an address at the Indiana State Fair, asserted that "the wheat crops of Ohio had fallen from 35 to 15 bushels per acre." Intelligent agriculturists in Ohio have repeatedly denied and disproved such statements as this, and have shown by statistics that the crop has actually increased. But the statement was made to support a favorite theory, from interested motives, and on this ground will receive such excuse as it may deserve.

In former years, it was not uncommon to hear similar assertions in relation to the diminution of the wheat crop in the best wheat regions of New-York. Careful inquiry of wheat dealers and others best qualified to judge, supported the opinion that up to the time that the wheat midge began its extensive depredations, the wheat crop in western New-York had actually increased ten bushels per acre as an average product for the previous fifteen years—an improvement to be ascribed to improved farming, and the result mainly of agricultural societies and agricultural periodicals.

Patent Office Report for 1854.— We are under obligations to the Hon. Charles Mason for the Patent Office Report for 1854. From a short examination we are inclined to think it superior, on the whole, to many of its more immediate predecessors—we are quite aware, however, that this is not saying much in its praise. A large portion of the work is devoted to horticultural subjects—the matter being obtained principally from the Report of the American Pomological Society, and from our standard works on vegetable gardening, &c. It is all *good*, but *old*. In fact, there is scarcely anything *new* in the book. The greater portion of Mr. Browne's article on Guano, will be found, if we mistake not, in his "Book of Manures." It is good enough as far as it goes, but it contains nothing new.

Influence of Gypsum on Clover.—There is still, after many years of experiment and discussion, a want of agreement in the opinions of agriculturists as to the cause of the beneficial effects derived from the application of gypsum to clover. Some are disposed to attribute these beneficial effects to the action of the sulphur or sulphuric acid in gypsum; others to the action of the lime contained in it. Though many experiments and analyses have been made, still there is much difference of opinion from the want of conclusive and reliable evidence. A new series of experiments has just been published by a German agricultural chemist—Ritthausen—which throw some new light upon this subject. One of the most important conclusions to be drawn from these experiments is that while the bulk of the fresh crop is increased, the quantity of dry matter is diminished. This was also the result of an application of the ashes of pine and turf. The author of the experiments is of opinion that all clover grown with gypsum will be found to contain an increased proportion of water.

The nutritive value of clover is also increased as the protein compounds on which this value depends are materially increased by gypsum. This M. R. attributes to the effect of the gypsum in facilitating the passage of ammonia from the soil and from the air into the plant. He supposes it to act by decomposing the humate of ammonia, forming humate of lime and sulphate of ammonia, which converts the ammonia into a more available condition.

An Excellent Remedy for Horses that Pull on the Halter.—Put on a strong harness with good breeching, and a long strong halter, and bring that down through the collar; fasten him to something he cannot move. He will make but few attempts before he gives it up, and in this way he can be broke of it. J. T.

Large Sunflower.—In a late number of the Country Gentleman, is a notice of a large Sunflower, about sixteen inches in diameter—supposed by the writer to be the largest flower of the kind ever grown. In the year 1826, one of the editors of this paper measured a sunflower which grew in Ledyard, Cayuga Co., N. Y., on the farm of S. Gildersleve, the disc of which (not measuring the petals of the rays) measured 18 inches the shortest diameter, and 18¾ the longest diameter.

Splitting Boulders.—An improvement on your plan of spliting boulders is—after you get the rock very hot, remove the fire and pour on a few buckets of cold water. I have tried it, and never knew it to fail. J. J.

ALBANY SEED STORE.

ESTABLISHED IN 1831.

THE subscriber now offers at wholesale and retail his usual extensive assortment of genuine GARDEN and FIELD SEEDS, growth of 1855, comprising in part the following desirable articles, viz:

King Philip or Improved Brown Corn—price 25 cts. per qt.
White Russian Flax—(a new and desirable acquisition,)—price 25 cts per quart.
Long-Island Flax.
Garden and Field Peas of all sorts.
Garden and Field Beans of all sorts.
Indian Corn in great variety for the Garden and Field.
Millet Seed—$3 per bushel—Broom Corn.
Hemp—Rape or Cole Seed.
Lucerne or French Clover—White Dutch Clover.
Red Clover and Timothy—Red-Top or Herd's Grass.
Orchard Grass, and Mixed Grass Seeds for Lawns.
English Rye Grass, Spring Vetches or Tares.
English White Mustard, Sunflower.
Onion Setts and Top Onions.
Improved Ruta Baga Turnip.
Large White English Norfolk Turnip.
Yellow Aberdeen & White & Red top Strap-leaf Turnip.
Red Top and White Flat Turnip.
Large White Field and Long Orange Carrot.
Long Red and Yellow Globe Mangel Wurtzel.
White French and Yellow German Sugar Beet.
Honey Locust, Buckthorn and Osage Orange for Live Fences.
Yellow Locust for Locust posts.
New Orange Watermelon—25 cents per package.
Christina Muskmelon (true.)—50 cts. per ounce.
With a large assortment of choice Flower Seeds and spring planting Bulbs, &c., &c., &c.

For full particulars reference is made to my Annual Catalogue of Garden, Field and Flower Seeds, just published for 1856, which will be mailed to any address on application.

WILLIAM THORBURN,
Seedsman and Florist,
March 13—w&m3m 492 Broadway, Albany, N. Y.

TREES AND PLANTS.

THE subscriber offers for sale a large and general assortment of FRUIT and ORNAMENTAL TREES and SHRUBS, comprising every item that is usually to be found in the most extensive *hardy* collections of Nursery Stock, that can be grown without protection in this latitude.

Exact inventories of the stock, denoting the height of the trees, and the number of each sort offered for sale, with the prices, forwarded to all prepaid applications enclosing a one cent postage stamp.

S. MOULSON,
April 1—m1t 36 Front-st., Rochester, N. Y.

DEVON CATTLE.

THE subscriber's second ANNUAL CATALOGUE of DEVON CATTLE, bred entirely from stock of his own importation, is now ready. It contains full pedigrees of all the animals in his herd; of which he offers a number of very superior bulls and heifers for sale.

Also ESSEX PIGS, bred from the best importations. Address,

C. S. WAINWRIGHT,
April 1—w&m6ms. Rhinebeck, Duchess Co., N. Y.

To Farmers and Gardeners.

YOUR attention is called to the Manures manufactured by the Lodi Manufacturing Co. from the contents of the sinks and Privies of New-York City, and free from offensive odor, called

POUDRETTE AND TAFEU.

Poudrette is composed of two-thirds night soil and one-third decomposed vegetable fibre. Tafeu is composed of three-fourths night soil and one fourth No. 1 Peruvian Guano.

These manures are cheaper and better adapted for raising Corn, Garden Vegetables and Grass, than any other in market. Can be put in contact with the seed without injury, and cause Corn and seeds to come up sooner, ripen two weeks earlier, and yield one-third more than other manures, and is a *sure preventive of the Cut Worm.*

Two bbls. Poudrette or 100 lbs. Tafeu, will manure an acre of Corn in the hill. Tafeu 1¾ cents per lb. Poudrette $2.00 per bbl., or $1.50 for any quantity over 7 bbls., delivered on board vessel or Railroad, free from any charge for package or cartage. A pamphlet, containing every information, sent, postpaid, to any one sending their address to

THE LODI MANUFACTURING CO.,
Jan. 17—w&m4m 60 Courtlandt-st., New-York.

SELF-RAKING REAPER AND MOWER.

BEST MACHINE IN USE.

1 (the first) used in 1852.
40 used successfully in 1853.
300 in twenty different States in 1854.
1200 in all parts of the Union in 1855.
3000 building for the harvest of 1856.

THERE ARE SIX GOOD REASONS FOR THIS unparalleled increase and great popularity. 1st. It is strong and reliable, and easily managed. 2d. It saves the hard labor of raking. 3d. It saves at least another hand in binding. 4th. It saves shattering by the careful hand ing in raking; besides the straw being laid straight, it is well secured in the sheaf, and does not drop in the after handling, and the heads are not exposed in the stack, so that the GRAIN saving even exceeds the LABOR saving. 5th It is a good Mower, being one of the best convertible machines in use. 6th. It has a knife that does not choke.

Its other excellencies, too numerous to mention here, are fairly given in the circulars. Its intrinsic worth is also attested by the award (mostly in only 3 years) of

OVER 70 FIRST PREMIUMS!

PRICE.—REAPER AND MOWER, $200.—$75 on its receipt, $75 first September, and $50 first December. Price of SELF-RAKING REAPER only $175. Considerable saving in freight to those at a distance who order prior to 1st March; also liberal discounts for advance payment.

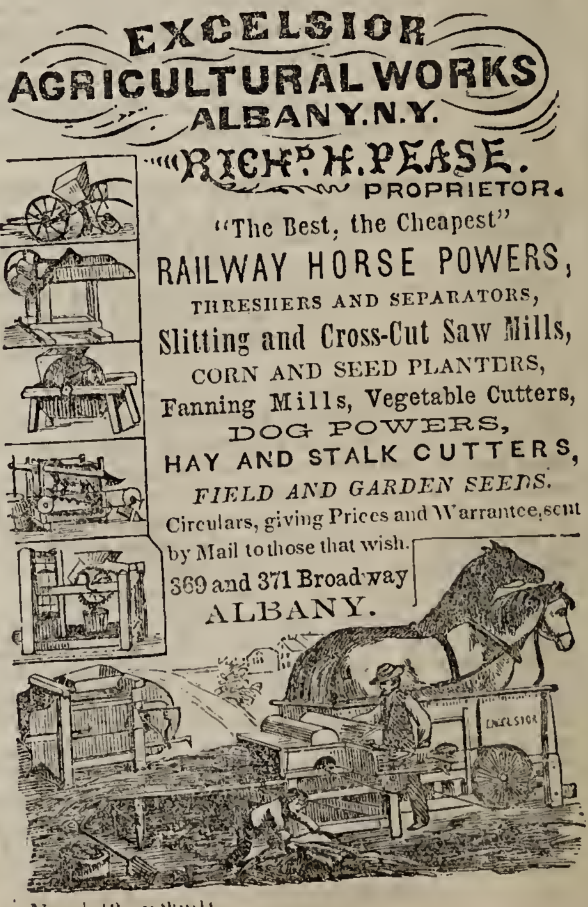
To procure a machine, order immediately. Though so little known the past season, and none ready for delivery till 1st of May, yet not two-thirds of the customers could be supplied. The reputation of the Machine is now widely established, so that THREE THOUSAND will not as nearly supply the demand as twelve hundred did last year, and we shall also be selling four months earlier.

☞ Order early, if you would not be disappointed.

PAMPHEETS giving IMPARTIALLY the OPINIONS OF FARMERS, together with orders, notes, &c., mailed to applicants, and prepaid.

☞ Write to us at CHICAGO, (Ill.,) DAYTON, (Ohio,) or BALTIMORE, (Md.,) which ever is nearest you.

J. S. WRIGHT & CO.
"Prairie Farmer" Works, Chicago, March 6—w4tm4t



EXCELSIOR
AGRICULTURAL WORKS
ALBANY. N.Y.
RICHD. H. PEASE.
PROPRIETOR.

"The Best, the Cheapest"
RAILWAY HORSE POWERS,
THRESHERS AND SEPARATORS,
Slitting and Cross-Cut Saw Mills,
CORN AND SEED PLANTERS,
Fanning Mills, Vegetable Cutters,
DOG POWERS,
HAY AND STALK CUTTERS,
FIELD AND GARDEN SEEDS.
Circulars, giving Prices and Warrantee, sent by Mail to those that wish.
369 and 371 Broadway
ALBANY.

March 13—w2tm1t

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

SPRING SEEDS.

WHEAT—Club, Fife, Tea, Black Sea, &c.
Peas—all kinds.
Beans— do
Broom Corn Seed.
Clover and Grass Seeds, and
Garden Seeds in great variety.
RICH'D H. PEASE,
March 6—w&mtf 369 & 371 Broadway, Albany.

SPECKLED DORKINGS

AND Fancy Lop-Eared Rabbits, carefully boxed and delivered at the Express Office, Utica, at $5 each. For sale by R. H. VAN RENSSELAER,
Feb. 27—w3tm3t Morris, Otsego Co., N. Y.

BONE DUST,

GROUND, Turnings and Sawings.
For sale by A. LONGETT,
34 Cliff-st., corner of Fulton, New-York.
Feb. 27—w8tm3t

AGRICULTURAL IMPLEMENTS,

WHOLESALE and retail—FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse.*
GRIFFING, BROTHER & CO.
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

FRUIT TREES,

FOR ORCHARDS AND FRUIT GARDENS,

CONSISTING of the best standard varieties, *whose genuineness has been proved in all cases*, are offered for sale by the subscriber. Careful selections will be made when desired, embracing a suitable proportion of the best sorts, so as to afford a regular succession of the finest fruit, at the following prices, viz:

Apples,	.20	cents	each.
Peach, 2 and 3 years,	.20	"	"
Cherry, " "	.38	"	"
Plum, " "	.50	"	"
Pears, Dwarf, 2 and 3 years,	.38	"	"
" Standard, " "	.50	"	"

Extra large trees will be at higher prices.

Ornamental trees, evergreens, shrubs, roses, &c., of carefully selected and hardy sorts.

Trees securely packed for any distance.
J. J. THOMAS,
feb. 28—w6tm2t Macedon, Wayne Co., N. Y.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,
GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

To Long-Island, Jersey and N. Y. Farmers.

THE subscribers, having the exclusive right to all the night-soil emptied from the sinks and privies of New-York City, for five years—and there being more than they wish to use themselves, they are prepared to furnish to Farmers at their landings up any river, creek, or bay, where vessels can come, the *crude night-soil*, just as received from the scavengers, and empty it into carts, or furnished tight tubs, in which it can be carried on to the land—for from 10 to 18 cts *per bushel*, according to distance and circumstances, or persons sending their own vessels will be loaded at the company's wharves.

Now is the time to get a manure more powerful, more forcing, and cheaper than any in the known world. Cargoes will vary from 1000 to 8000 bushels, according to quantities desired. Apply to
THE LODI MANUFACTURING CO.,
Jan. 17—weow4tm4t 60 Courtlandt-st., New-York.

Superphosphate of Lime,

OF the best Brands.
For sale by A. LONGETT,
Feb. 27—w8tm3t 34 Cliff Street, New-York.

ICHABOE GUANO.

JUST RECEIVED by the brig Wave Spirit, direct from the Ichaboe Islands, a cargo of this superior Guano, (which is the first cargo arrived, since that brought by the ship Shakspeare in 1845.) This guano is now landed in excellent order, will be sold in lots to suit purchasers. Samples and analysis will be sent by addressing the Agent. As the quantity is small, early application will be necessary. Farmers who cannot remove what they desire, may have it remain on storage until April 1st, at 18¾ cts. per ton per month which includes Insurance.

Price $40 per ton of 2000 lbs.
A. LONGETT, Agent,
34 Cliff St., Corner of Fulton,
Nov. 1—w&mtf. New-York.

FISH GUANO.

THE Narragansett Manufacturing Co. of Providence, R. I., are prepared to execute orders for their Fish Guano. They have prepared their guano after two methods; one by chemically treating, cooking and then drying and grinding the Fish to a powder. This is put in bags and sold at $45 per ton. For the other variety the fish are prepared as above, (with the exception of drying and grinding;) and are then combined with an absorbent which is in itself a valuable fertilizer; and sold at $2 per barrel, containing about 200 lbs. This compost is of great strength, and must be a very efficient fertilizer, as it is composed in great part of simple flesh and bones of fish.

Dr. Charles T. Jackson, of Boston, has made an analysis of the Powder, and says:

"It is similar to Peruvian Guano in composition, with the exception that the ammonial matter is dried flesh of fish, and not putrified, so as to be ammoniacal. It will, however, produce ammonia by decomposition in the soil. One hundred grains of this manure, dried and finely pulverized, was submitted to analysis, with the following result:

ANALYSIS.

Ammonial matter, (flesh of fish,)	48-00
Phosphate of Lime,	33-90
Carbonate of Lime,	7-60
Sulphate of Lime,	6-40
Potash and Soda,	4-10
	100-00

Respectfully your obedient Servant,
CHARLES T. JACKSON,
Assayer to the State of Massachusetts,"
Boston, July 21st, 1855.

Dr. Jackson's opinion of our Guano is expressed in the following Note:

BOSTON, March 9th, 1855.

S. B. HALLIDAY, Esq.—Dear sir:—In reply to your letter, I would state my entire confidence in the superiority of a properly prepared artificial guano, made from fishes, over that of the natural guano of birds, obtained from the coast of Peru.

It is obvious that more of the nitrogenous, or ammonia producing substances, exist in fish prepared after your method, than are found in any guano, and hence the artificial preparation will go further in the fertilization of a soil.

The ammoniacal salts act chiefly in bringing the foliage into a healthy and luxuriant condition, and thus causes the plant to absorb more of the phosphate and other necessary salts and substances from the soil, and more carbonic acid from the air. The carbonate of ammonia also, is a solvent for humus, and it quickly saturates any injurious acid salts that may exist in the soil, and forms from some of them valuable fertilizers.

Respectfully, your obedient servant,
C. T. JACKSON, M. D., State Assayer, &c.

This Manure is offered to agriculturists with the assurance of its becoming one of the most popular to be obtained. The Company are ready to establish agencies at such points as are desirable for the convenience of Farmers. As the supply for this season is rather limited, the Company esteem it a favor to have orders forwarded early to enable them to lay down at their agencies the requisite quantities in proper time for use,—orders may be addressed to the Company at Providence, or to R. H. PEASE, Albany, N. Y. or R. L. ALLEN, New-York.
S. B HALLIDAY, Agt.
22 West Water St, Providence, R. I.
Jan. 21—w6t—m6m.

STRAWBERRY POTATO.

A FEW barrels to spare—

Price—¼ bushel,	$ 1.25
½ "	2.25
1 "	4.00
1 barrel of 2½ bushels,	10.00

Delivered in Albany. Address G. W. DURANT, Renselaerville, Albany Co., or E. P. DURANT, 119 Pier, Albany.

Feb. 21—w1tm2t

SALAERATUS.

THE subscribers offer to the trade Salaeratus of different grades of strength, which they claim to be superior in quality to any other in market, and entirely free from any deleterious ingredients.

We are the only Manufacturers whose process of manufacture is conducted under the immediate superintendence of an experienced practical chemist. Having been engaged for several years in the manufacture of our peculiar kind of Salaeratus, and being the originator of those manufactured, we can offer to consumers a guarantee of its great excellence, which no other manufacturer can do; the new kinds of Salaeratus pompously set forth, under various names, in different advertisements, being merely imitations of the article we originally introduced to the public.

We warrant the quality of all goods sold by us, and agree to return the purchase money, together with expenses of transportation, on every article that proves to be inferior to our representation of its quality.

JOHN DWIGHT & CO.,
No. 112 Pearl-st., New-York,

Feb. 21—m3t*

FOR SALE,

A VERY VALUABLE FARM.—The subscriber having determined to retire from business, offers his Farm for sale, containing about nine hundred acres of land, lying in Fairfax county, Virginia, about *ten* miles from Alexandria, Georgetown and Washington, which afford the best markets in the United States for the ordinary products of the farm.

The buildings are all comfortable; and the most of them have been erected within a few years. The *dwelling* is of *brick* with a frame addition containing *eleven* (11) *rooms*—the other buildings consist of *houses* for *laborers* with their families—a large *barn* and *stables—granary—carriage* and *wagon houses*—large *stone dairy—stone ice and meat houses*—a *large house* for *apples* and *cider* making, with *extensive cellars* for storing cider, and vinegar—and other necessary outhouses.

There are about 1000 *peach trees* of choice varieties; and 1500 or more *apple trees*, all in fine bearing condition; from which the subscriber realized last season between four and five thousand dollars, which amount might easily have been *increased to double by an efficient salesman.*

Large crops of *corn, wheat, oats, hay,* &c. are annually produced, for which the soil and climate are admirably adapted. The *meadows* are very *extensive;* and have yielded, without failure, heavy crops of hay for 40 years, without ever having been manured. The soil is easily improved; and is more retentive of improvement than any land within an equal distance of Washington.

It lies between two Railroads, one and a half miles distant from each. These roads, which will soon be completed, run through a lime-stone region 25 to 30 miles distant, and will be able to furnish it in any required quantity. The proprietor, 12 years ago, applied to a field 30 bushels of lime to the acre, with remarkable effect in increasing the crops, which effect still continues.

A large part of this land is in wood—much of it being heavy primitive *Oak-timber* suitable for ship building.

It is *abundantly* supplied with the *purest water.* In point of *healthfulness*, it *cannot* be *surpassed.* The subscriber's family, never numbering less than 25 persons, have not cost for medical services more than an average of $10 per annum, for the last *twenty years*

The wood-land is so distributed that the estate can be divided into several parts.

There are Methodist, Presbyterian, Episcopalian and Baptist churches in the neighborhood.

It is offered at thirty-five dollars per acre, which is not half its value—the orchards and meadows alone, being worth the amount demanded for the whole estate.

Its proximity to Washington, the permanent seat of the General *Government*, which is growing very rapidly in wealth and population, must, with its other advantages, increase its value annually.

Persons wishing to purchase will make application to

WM. Y. DULIN,
near Falls Church,
Fairfax county, Virginia.

March 1—mtf.

King Philip or Brown Corn.

THE subscriber has received and offers for sale in small quantities, (genuine,) the above desirable variety of corn. Price 25 cents per quart.

WILLIAM THORBURN,
Albany Seed Store,
492 Broadway.

Feb 28—w4tm1t

HIGHLAND NURSERIES,

NEWBURGH, N. Y.

A. SAUL & CO., in calling the attention of the public to their establishment, deem a lengthened notice unnecessary. They would merely state that the stock of their nurseries, which they offer for sale the coming spring, is full in every department, and is of the best quality; including all the recently introduced *Pears* and other fruits, both *Dwarf* and *Standard;* also all the varieties in the *ornamental department*, both deciduous and evergreen, including all the new and rare *Conifers, Weeping Trees* and *Shrubs*, as well as a full stock of all the leading articles to be had in the trade.

For particulars in detail, they refer to their general catalogue, a new edition of which is ready, and will be forwarded to all *post-paid* applications, enclosing a P. O. Stamp to prepay the same.

A large quantity of Osage Orange and Buckthorn plants, for hedge and screen purposes.

Dealers and planters of trees on a large scale, dealt with on the most liberal terms.

Newburgh, March 1, 1856—weow4tm2t

Farmers' and Planters' Encyclopedia.

THE new and improved edition of this valuable book is in one volume, octavo, handsomely bound in Russia leather. It contains about 1200 closely printed pages, and is illustrated with numerous plates, of animals, plants, implements, etc.

The Hon. Marshall P. Wilder, President of the United States Agricultural Society, in a letter to the American Editor, G. Emerson of Philadelphia, says:

"After an attentive examination of your Farmers' and Planters' Encyclopedia, I take pleasure in recommending it as a standard work, abounding in practical and scientific information adapted to the comprehension of unscientific readers. A copy should be in the hands of every farmer or person at all interested in rural affairs. It is peculiarly well suited to the purposes of a premium book for distribution by Agricultural Societies, and in this way may be placed in the hands of many that it would not otherwise be likely to reach. In the publication of this work you have contributed greatly to promote the diffusion among our countrymen, of the best agricultural information, arranged in the most convenient form for ready reference.

Boston, April 7th, 1855."

To be had at the principal book stores in the U. S. On receipt of $4 00 by Luther Tucker & Son, Albany, N. Y., C. M. Saxton & Co., 140 Fulton-st., New-York, or D. Landreth & Co., 21 South 6th-st, Philadelphia, a copy will be forwarded to any part of the United States, free of charge for postage or carriage. *A liberal discount made to Agricultural Societies or Clubs taking a number of copies.*

Feb. 21—w1tmeom2t

Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.

Dec. 27—w&mtf

CRANBERRY CULTURE,

THE subscriber has issued a circular in relation to CRANBERRY CULTURE, and will forward it to all applications without charge. Also will forward PLANTS, in a fresh state, by Adams & Co.'s Express, to any part of the United States, or by any other conveyance requested. Price $7 per 1000. When clubs are formed for a considerable quantity, a liberal discount made. Should any of the plants die out with fair usage, other plants will be sent to fill all vacant places without charge. Address

SULLIVAN BATES,
Bellingham, Norfolk Co., Mass.

Jan. 24—w&m3m

UNITED STATES AGRICULTURAL

Warehouse and Seed Store.

MAYHER & CO., Nos. 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,

FIELD AND GARDEN SEEDS,

ever offered for sale in the United States

Among our collection may be found the following, viz : —

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle D and F Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of al. sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers. for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers.

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use.

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf

To Farmers and Gardeners.

THE subscriber offers for sale a new and *very early* SEEDLING POTATO of his own raising, which for productiveness, hardiness, early maturity, and fine qualities for the table, is believed to be superior to any other variety in cultivation.

It has now been cultivated for four years, and every year has produced a large crop of sound tubers.

It is a white potato, and being larger and more productive than the "Early June," will be found particularly valuable for the market gardener, as it is quite as early as that variety. In testing the comparative value of this potato, the undersigned has made no attempt, by high manuring and extra cultivation, to produce a few hills of large potatoes, but in every instance it has been planted in the field with the "Early June" and other varieties, and in sufficient quantities to give it a fair trial; at the same time giving it the ordinary field cultivation. Under these circumstances, and notwithstanding the extreme drouth of 1854, it has in no season produced less than two hundred bushels to the acre, while in some it has produced three hundred.

Price $4 per barrel, delivered at the R. R. Depot or Steamboat Landing at Hudson.

References—S. K. Hogeboom and Wm. E. Miller, Esqs., Claverack. Address E. G. STUDLEY,
Jan. 31—w2tm3t Claverack, Col. Co., N.Y.

JUST PUBLISHED,

THORBURN'S RETAIL CATALOGUE for 1856, of Vegetable, Herb, Grass, &c., Seeds, will be mailed to any address on application.

J. M. THORBURN & CO.,
Jan. 3—w2tinjf& m—m3t 15 John Street, New-York.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
Oct. 11—mtf New-York.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep French Sheep, Suffolk Pigs and Essex Pigs. Apply to J S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co, Pa. Jan 1—w&m1y*

CHOICE GARDEN,

FIELD AND FLOWER SEEDS, among which are Poland, Siberian, Friezeland and Canada Branch oats—Mexican, Early June, Mercer, Carter, &c., Potatoes,—English Potato and Top Onions—20 varieties of Melons: White Imperial, Mountain Sweet, Orange, Long Island, Black Spanish, Early, &c. Watermelons—Skillman's, Pine Apple, Golden Nutmeg, Early Christiana, Large Cantalupe, &c, Muskmelons—White Spine, Early Frame, Long Green, &c., Cucumbers—Early Walcheren and London Cauliflowers—Okra—25 varieties of Flower Seeds for One Dollar.

I. A. CLARK,
Jan. 31—w1tm2t Marion, Wayne Co., N. Y.

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 BROADWAY, NEW-YORK.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers. Combined Thresher, and Winnowers, and other Agricultural Machines.

May 24—m12t*

EXCELSIOR HORSE POWER

and Threshing Machines.

BY an experience of several years, this Portable Lever Four Horse Power and Spike Thresher, has proven to be the best and cheapest yet known. None have ever failed to give satisfaction in all respects. Its operation is easily understood, and can be used with one to four horses. It can be moved from place to place with ease, and can thresh out 50 to 75 bushels of wheat in an hour.

Price of Power, No. 1 Thresher, Band and Irons, . . . $130.00
Price of Do. No. 2, Do. Do. Do. .. 125.00

Orders will be duly attended to.

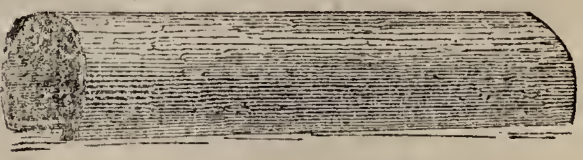
Terms cash on delivery in this city.

PLANT BROTHERS,
General Commission Merchants,
Feb. 28—w1tm2t 75 Pine-st., New-York.

ALBANY TILE WORKS,

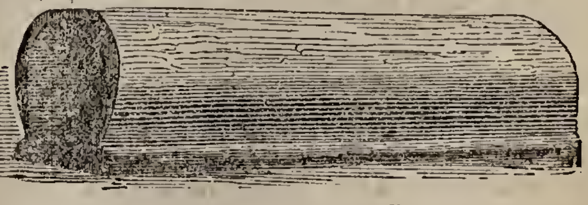
Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned, and over one foot in length. On orders for 10,000 or more, a small discount will be made.



HORSE SHOE TILE.

4½ inch calibre, $18 per 1000; 3½ inch calibre, $15 per 1000; 2½ inch calibre, $12 per 1000.



SOLE TILE, OR PIPE.

3 inch calibre, ... $18 per 1000.
2 inch calibre, ... 12 per 1000.

Also on hand 8 inch Horse Shoe Tile for large drains, $8 per 100—5½ inch, $40 per 1000. Sole Tile, 4 inch calibre, for sink drains, $40 per 1000—6 inch calibre Octagon Pipe, $20 per 100—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
late BABCOCK & VAN VECHTEN,
Feb. 21—w&m3ms. Albany, N. Y.

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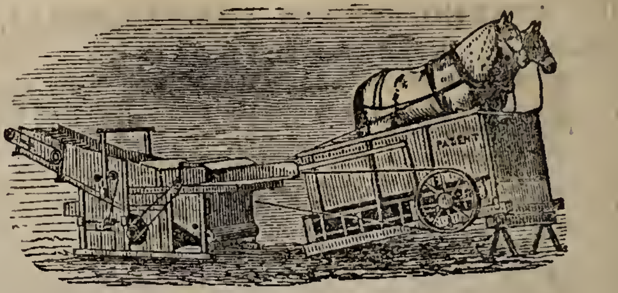

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Schenectady, March 6, 1856—w&mtf

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March 20—w2tm1t. Amos Billington.

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☞ Our exchanges will confer a favor by giving the above one or two insertions.

THE CULTIVATOR.

THIRD SERIES.

To Improve the Soil and the Mind.

VOL. IV. ALBANY, MAY, 1856. No. V.

Preparing Nursery Seeds.

The late "proceedings of the Michigan Nurserymen and Fruit Growers' Association," as published in the Michigan Farmer, contain some valuable suggestions on the preparation and management of the seeds of fruit trees, which although not new to experienced nurserymen, may be useful to many others. The following remarks were made in substance, on the washing of *apple seeds from the pomace*, which may furnish information in reply to the numerous inquiries made lately on this subject.

E. Moody thought the best and most rapid mode was by the use of a machine so constructed that the pomace being placed in a hopper, passed to a concave bed through which a stream of water poured, and where the pomace was stirred, and afterwards made to pass over a sieve. The seed immediately drop through and are collected below. It was stated the machine will clean from five to eight bushels per day. A more minute description of this machine would be desirable. A prominent difficulty in washing the seeds from pomace, consists in the time required to break up the lumps made by the hard pressure given in making cider. We have seen a machine which accomplished this with rapidity, which was made quite similar in nature to the spiked bed of a common thrashing machine, with the difference that the spikes were of wood and larger and coarser. With the addition of water, the pomace was quickly separated, and the seeds dropped through a coarse sieve, as they always sink in water.

It is well known that apple seeds are quickly spoiled if allowed to remain in the heaps of pomace till it heats or ferments. *Large quantities of apple seeds, handsomely washed and cleaned, are sold every year, which are nearly worthless from this cause.* The "proceedings" alluded to, contain the following rule for detecting injured seed, furnished by J. T. Blois:—When the covering or cuticle of the seed will slip or peal off easily, the seed has been spoiled; when it will bear scraping with a knife without cleaving from the kernel, and the kernel is of a pure white, it is good. This rule, which is obviously a correct one, if generally attended to, would save from a vast amount of imposition in the autumn, when apple seeds are sold.

PEACH STONES.—It was stated that peach pits, placed on the surface of the earth, and exposed to freezing and thawing, would be rendered worthless, if the frost is extracted from them by the air and sun—but if thawed in contact with or covered by earth, they would remain uninjured. This, we believe, accords with the experience of nurserymen generally. Mixed with sand or earth the pits will grow; thrown out in unprotected or uncovered piles, they fail, even if the kernels are carefully taken out in spring by cracking.

J. C. Holmes stated that his practice was to cover peach stones, spread out in a bed, with about three inches of earth in autumn. A portion come up the first year, and when two inches high, are taken up and set in rows—which are thus even and full. The remainder of the pits come up the second year, when the process is repeated—one bed lasting for two years' planting. This practice is pursued by some of our best nurserymen; but as some check in growth and much labor attend their removal, we have found it more convenient to rake over the bed early, and select such as are sprouting, which being set in rows, come up evenly and grow with vigor. It often happens that a small portion only will grow the first year, and the great mass of them the second; hence where peach stones are abundant, the best way is to let the few go which sprout the first spring; not disturbing the bed till the second, when all the rest readily open without the labor of cracking.

CHERRY STONES.—J. C. Holmes, after stating the well known fact that cherry pits must be buried while yet fresh, said that he planted them at once, spreading tan bark over them if the season was dry. The following spring they come up through the tan-bark and do much better than if planted in spring. To which we may add, that if cherries are planted in the autumn, with an earth covering merely, a serious difficulty often occurs, in the hard crust formed on the surface, through which the young cherry plants find it sometimes impossible to penetrate. The tan-bark obviates this difficulty—finely pulverized stable manure, and perhaps peat or leaf-mould, would do the same.

Extracts from our Corespondence, &c.

Fertile Subsoils—Deep Plowing.

An Amateur Farmer of Randolph, Vt., says:—"I have recently become possessed of about 30 acres of land, some of which has been cultivated over 40 years, and never been plowed probably more than 6 inches deep, generally about 4 inches. It is what I suppose would be called a very loose black loam soil, very deep, having been examined and tested 6 or 8 feet, and found to produce, when spread upon the surface, much better than the surface soil. I wish to inquire if it would probably be good policy to plow it 10 to 12 inches deep? If so, what is the best way to do it? or what is the best plow for doing it? After being turned up, what process of manuring it should be adopted?"

A large common plow, with a double team, (4 horses or 4 oxen,) will enable our correspondent to invert the soil to a depth of 8 or 9 inches—and if, as appears, the subsoil is richer than the surface, the land would be improved in every way. A double mould-board plow, (or Michigan subsoil,) with a triple team, will enable him to go down easily one foot or more. Manure is to be applied as to any other soil—that is, spread, pulverized with the harrow, and turned in—the more equally it is diffused through every part of the worked soil, through all portions of which the roots of plants are to penetrate, the better.

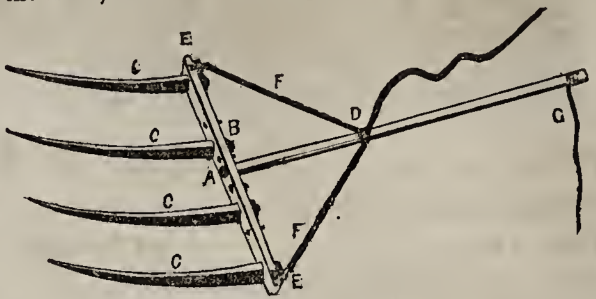
If our correspondent has any doubts of the success of this deep plowing, he can try an acre or two first by way of experiment.

Pitching Hay by Horse Power.

Mr. P. P. Peckham of Sylvania, Bradford Co., Pa., writes us as follows:—"In describing L. F. Allen's barn in Annual Register for 1856, page 179, it is very properly suggested that something is desirable for unloading hay, &c. The plan proposed is so far in advance of the hand method, that I could like it, if I thought it the best that might be adopted. Allow me to propose the Horse Pitchfork, as described in a back vol. of the Cultivator. I copied from the Cultivator, and made the first fork of this kind known in this part of the State, about five years ago. Now I think it would be safe to say that about 200 are in use, and liked well. Some say they would not take $100 for a fork if they could not get another. I am aware that an elevator would carry the hay on to a mow, but would be more in the way, and could not be made to carry the hay to any desired locality as the fork would; besides, with an elevator, all the hay would have to be pitched by hand on the elevator from the load."

The Horse Pitchfork alluded to above, was figured in the Cultivator for 1848, p. 122, by a "Practical Farmer" of Bucks county, Pa., who thus describes it:

A, is the head, 28 inches long, and 2½ inches square, of white oak, or some other strong wood. B, is the handle, 5½ feet long, mortised into the head, with an iron clasp of band or hoop iron to fit tight over the head, and to extend six inches up the handle, secured by two good rivets through the handle, to increase its strength—*c*, *c*, *c*, *c*, the prongs of the fork, made of good steel, and of the right temper, ½ an inch wide at the head, and drawn out tapering to the point. They are to be 20 inches long, 8 inches apart in the head, with a burr to screw them up tight, and a rivet on each side of the middle prongs, to keep the head from splitting. E, E, staples, riveted over the end prongs, to which the rope, F, F, is to be attached—the rope to be drawn together 3 feet from the head in the form of an A, and then the single rope to extend from that over a tackle-block, which is hung to a rafter at the peak of the roof of the barn, and 2 feet over the side of the mow, and thence to the bottom of the door-post, where another tackle-block is attached, under which the rope passes. G, is a small rope, attached to the end of the handle, by which the fork is kept level as it ascends over the mow. As it approaches the place where the hay is to be left, the rope should be slackened in the hand, when the hay will tilt the fork so that it will discharge its load immediately. The fork, when loaded, is raised by a horse, which is attached to a swingle-tree to which the rope is fastened, near the lower pulley or tackle-block above-mentioned. When the hay is discharged from the fork, back up the horse and be ready for another fork-full. The fork is drawn back by the small rope. In this way forks-full can be picked up nearly as quick as they can be by hand.



HORSE PITCHFORK.

A farmer that has a large quantity of hay to pitch, will more than get pay for the trouble and expense of a fork of this kind in a single year. With the assistance of a boy to lead the horse to the fork, a man can with ease pitch off 6 tons of hay per hour, and pitch it from 15 to 20 feet high. On a trial of speed, I have pitched a ton 15 feet high in 4 minutes. The fork does not cost over $5 without the blocks and ropes, and I think they can be had all together, ready for putting in operation, of Garret Brown, Newtown, Bucks Co., Pa., for $7.

Uses of Salt in Agriculture

Extract of a letter from a western correspondent:—

"Of the *uses* of salt in agriculture, we find few who can speak very confidently or from personal knowledge. It seems highly desirable to know for what purposes it might be profitably used, for if all the advantages which have been claimed as results of its application to the soil and to crops should prove, upon well-conducted trials, to be procurable by its use, it would be an important agent in husbandry. We have planned a few experiments to be made in the course of next season, the results of which will be contributed as one help to a better knowledge of the uses of salt. If others will join in making a few experiments, quite a considerable contribution to the common stock of accurate and reliable and useful knowledge may be made, in the course of a year or two, through your columns.

"Although the testimony given some years ago in the pages of the *Cultivator*, seems decisive that salt will not kill wire-worms, still it may be found quite an important aid towards getting rid of some of the minor pests of the garden, or orchard, or field. Sprinkled around plum, apple, and other trees about which insects are apt to burrow in the ground, it may help to destroy them, or at least to lessen their number. Some carefully conducted experiments would contribute to determining whether salt can be made to yield such aid to orchardists, gardeners and farmers. To induce some of the readers of this paper to plan, prepare for, carry through, and afterwards report such experiments, has been one main object of this communication."

Buckwheat—Its Culture, &c.

Messrs. Editors—Buckwheat, or beechwheat—its grain is like the mast of beech—is considered to be a native of Asia. It is cultivated in China and other countries of the East for bread and cakes. It is also used for the same purpose in various parts of Europe, and also as rice or gruel in Germany and Poland. It is yearly becoming more and more cultivated in this country, yet it does not yet receive that attention from farmers which its merits demand. Not only is the seed valuable for food to both man and beast, but the straw, if cut before being killed by frost, is an excellent fodder for cattle and sheep. Sheep seem to prefer it to any other straw. The average yield in this section is from twenty to twenty-five bushels per acre. The last season, Sam'l Allen, of the town of Benton in this county, raised one hundred and twenty-seven bushels from one bushel sowing, on about two and a half acres; and John Scofield, of Prattsburg in Steuben county, harvested two hundred bushels on four acres. Mr. Allen counted nearly four hundred kernels on one stalk in his field. In this climate it should be sown from the 20th of June to the 4th of July. I have known pretty good crops which were sown as late as the 10th of July. I have used from half a bushel to one bushel of seed to the acre, and now think that half a bushel is amply sufficient. S. B. Buckley. *West Dresden, Yates Co., N. Y.*

Smut in Oats.

Editors Co. Gent.—During the past season, as is perhaps generally known, there was much complaint of the smut in oats, especially in southern Indiana, My object in writing this is to make the following inquiries, which, if you or some of your correspondents can answer, may prove beneficial to many subscribers.

1. What is the cause of smut in oats, and is there any preventive known?
2. Will seed oats taken from an infected crop, produce good heavy oats, or will the disease continue to increase until it destroys the whole crop?

So general was this disease spread over this portion of country, and so unexpectedly too, was it to our farmers, that no little surprise has been manifested. The crop grew luxuriantly, and promised to be as fine as we ever had, (and it was heavy strawed,) but after earing, the destructive ravages of the disease above mentioned made itself apparent. In many fields one-fourth, and in some one-third of the ears were entirely worthless. It is different from what is called "blasted oats," the grain having the proper form, but being filled with a black, dusty substance, which is offensive to smell, and renders it unfit for food, especially for the horse, when cut with the straw cutter. The only way the grain can be fed with advantage is to thresh it, and fan it thoroughly which will cleanse it of the smut. The value of this crop for feed, and its heretofore certain paying yield, makes me quite anxious to gain all the information I can, and any which I may be able to obtain through your valuable paper will be gratefully received by A Plowman. *Canton, Ind.*

Smut in oats is common in some countries, but we have never witnessed it as a serious evil. Like the smut of wheat, which is more generally known, it is a parasitic fungus growing in the grain, and totally disorganizing it, and destroying its substance. Doubtless the same *preventive* remedy as is commonly used for the seed of wheat, would prove equally efficacious with oats, namely, washing the grain thoroughly in water, or still better in brine, (or giving the last washing in brine,) and then rolling it well in dry, powdered, water-slaked, fresh lime, some hours before sowing. If the crop is now sown on clean fresh land, the probability is that little smut will be seen in the future crop. This experiment, tried with the wheat crop, has diminished the number of smutty heads several hundred times; that is to say, where one head of smut was found after the prepared seed, hundreds could be found where unwashed seed had been used from a previous smutty crop. For further information on the subject, our correspondent is referred to an article on the 121st page of our last number.

Management of Hard-pan Soils.

I see in the 8th November no., page 301, of the Co. Gentleman, an inquiry relative to hard-pan. In my humble opinion there is no better way for farmers to derive great advantages from agricultural papers, than to ask and answer questions, and that frequently and freely; but our friend from Harwinton, Conn., wants you or some "scientific correspondent" to answer. There appears to be some difficulty here: however well many others might, with myself, answer practically, we cannot do it scientifically. Perhaps we have never seen a crucible. We know nothing of chemistry connected with agriculture. However, as I have introduced the subject, I will try to answer it—not what the hard-pan spoken of is composed of, but the best method to decompose it, and make it pervious to air and water. If the gentleman means that the hard-pan is one and one-half to two feet below the surface soil, as is the case in many places, he cannot do much with it, nor will it do much harm; but if he means that the first one and one-half to two feet is hard-pan, like frozen ground, then it is a hard job, and such as I have never seen any attempt made to till. I have seen and improved land, having below the top soil of four, five, six or seven inches, as many or more inches of hard-pan below. Wherever the plow will reach the hard-pan, the deeper it is broke up the better; and the only proper time to do it is late in the fall, after the earth has become well saturated with the fall rains. Although I am opposed to wet plowing in the summer, I dont care how wet, late in the fall, when not to be worked or sowed in the fall. I have found that five good horses—three in one plow and two in the other—the first turning a furrow of 17 inches wide and 10 to 11 deep—with the second plow, either a subsoil or narrow two-horse, go as deep as possible. I have used in preference, the two-horse plow, for the reason it exposes more of the subsoil to the action of the frost. What thousands and thousands of dollars would Jack Frost be worth to many farmers, if they would only give him something to do. He works cheap—he asks nothing. All the men in the world, cannot make such a machine. Just let him look at it this hard stiff subsoil and hard-pan. Throw it down on the surface, and he will tear and crumble and mollify it, and make it pervious to water and air. It will then become friendly, and mix up with the adjoining, and so deepen the soil and improve it. I dont know of one farm in Frederick County, but would pay three or four times what it would cost to subsoil it properly. It not only gives a greater range for the supply of food for plants, but in case of great rains it will sink down, and not lay on the surface to scald the grain and bake and harden the earth. It is surely well known to every man of observation and experience that to raise large crops there must be a deep rich soil, and where ever there is a tenacious stiff clay near the surface, that cant be done. Much depends on the nature of the soil, whether the deep fall plowing will benefit so much or not. If the land is composed of a large proportion of sand and alluvial clay, being pervious to water, it may be plowed deep at any time. But where there is a large proportion of stiff clay, and above all if there be hard-pan, by all means turn it to Jack Frost very deep, any time from the first of November to new-years. Wm. Todd. *Utica Mills, Md.*

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Value of Gas Tar as a Farm Paint.

Messrs. Luther Tucker & Son—I have seen several notices recently, of "the value of gas tar," as a "farm paint." I have used it for some time past, and consider it a most valuable article. It is certainly an excellent preservative of timber exposed to the weather, and can be used with great advantage, applied to carts, wagons, plows, gates, and, indeed, all the "iron work" about the farm, which needs paint of any kind, to protect it from rust, and give it a neat appearance, being a good substitute for oil and lead paint. Its cheapness is a strong recommendation, and I doubt not it will ere long be freely used by the farmers, wherever it can be conveniently obtained. Its disagreeable smell is not a material objection, as it loses most of it, in a few days after it is applied, but it "dries slowly," which is the greatest objection I find to its use. Can you, or any of your correspondents, tell me how *that* objection may be removed? I have been told to stir a little "fresh lime" into it, before using, which remedy I *have tried* without success. Js. A. Humphreys. *Versailles, Ky.*

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Inquiries and Suggestions about Root Culture.

In the Co. Gent of 28th Feb., there is a communication headed "Corn and Ruta Bagas together," signed J. F. I wish just to inquire of the writer when and how the bagas are sown—when the corn is planted, or after, and if with a machine or by hand.

It is usually conceded that we cannot plow too deep for root crops. Allow me to inquire if the roots of a baga extend any deeper than the roots of corn? My idea (it may be erroneous,) is to diffuse your manure through the first eight or nine inches of the surface of the earth, rather than taking the same amount of fertilizing matter and mixing with twice that depth.

In the raising carrots, I have come to the conclusion after repeated trials, that the best course is to allow them to remain in the drill quite close together, say eight or ten to the foot, rather than to thin them out more than this, and get larger roots. The great advantage in this course, I deem to be that: A medium-sized carrot is possibly more nutritious, and much more easily fed out to stock, as it need not be cut at all; and I have no doubt but the yield is fully equal where they are not thinned as where the opposite course is taken.

An inquiry I wish to make is this: As I have frequently noticed the great bulk of the carrot is in the first six inches of its growth, and when the ground is plowed very deep, and the roots extend down into the earth very much, that the bottom part does not amount to much—i. e., is very slim—why take so much pains to get the manure down deep in the earth? Why not rather thoroughly manure and pulverize the earth to the depth of eight or nine inches? It seems as though the manure would have more effect on the crop than if buried twice this depth. Wm. J. Pettee.

Products of Butter Dairies.

Messrs. Editors—Your favorable notice of my Farm Report, in the Country Gentleman of Nov. 15, places it in a position where comment and comparison may be freely indulged, let us hope to the advantage of the great cause in which so many valuable citizens are engaged. Especially that portion of it comprising the dairy statement, has been made the subject of several communications of value in some respects. But as they are not quite so clear in others I will proceed to a brief examination of them.

[Our correspondent, whose article was written before he saw the Co. Gent. of 6th March, proceeds to review the statements of Mr. Shepard and Mr. Arms, which we trust he will excuse us for omitting, inasmuch as Mr. Freeman, in the no. alluded to, went over the same ground.]

For the information of Mr. Arms, I will state that my cows were native, more or less crossed with Durham—none of them more than one-fourth Durham—aged from 3 to 8 years—inventoried on the first of April of that year, at $42.50 cents per head. I would farther add that I have a full blood Ayrshire heifer that weighed, when 18 months old, 900 lbs.—dropped a calf before 2 years old, and in 110 days gave 1,100 quarts of milk, from the cream of which 102½ lbs. of butter were made. The milk was carefully measured and butter accurately weighed. The only extra feed was 3 bushels of bran and meal equally mixed, and 10 bushels of carrots, before the grass season.

John Wing of Washington, received a premium at the Dutchess County Fair for 1855, for the best dairy cow, she having produced 459 lbs. of butter in one year. Now if we could multiply this by Mr Arm's figures, especially the latter price, it would produce an amount of money seldom if ever heard of from one cow for the same length of time, butter alone considered. We will only value it at 25 cents per lb, and it amounts to $114.75. It is to be hoped that all of the particulars in this case will some day find place in the Country Gentleman.

Mr. Arms "ventures the assertion that there is not a cow in the United States that will make 100 lbs. of pork in 7 months from the skim milk *alone.*" It is not claimed that the milk from one cow, fed to *one* pig, will *alone* make him dress just 100 lbs; nor is it believed that corn *alone* would produce that result. But a judicious system of feeding should be observed to insure the best results.

Sour milk forms an appropriate food for swine, during the first months of their existence, and taking the advantages arising from its use, in aiding their growth at first, and alternating with more substantial food afterwards while fattening, it is conceded by our most observing men that it produces 100 lbs. of pork for each cow. It is true that this is not the result of carefully conducted experiment, but is the best that can be done until Mr. Arms, or some other gentleman, will undertake to prove the case by experimen—if Mr. A. has not already done so, which we should infer from his stating, "I will not include pork or calves, of which I have kept an exact account." If he has kept an "exact account" of the "pork" made from his 8 cows, will he be so good as to inform us how much the sour milk of each will make. Geo. W. Coffin. *Amenia, Duchess Co., March 3d, 1856.*

Gas Lime for Agricultural Purposes.

The idea has been entertained in some quarters, that the refuse lime of gas works possesses considerable manurial value. In New-Haven it is sold at the gas works at an advance of one cent per bushel above the original price of fresh lime. I know of no experiments that prove its value, and can only judge of its worth from the results of a chemical examination. The supposed improvement which lime undergoes by being used as a gas purifier, has been referred to the absorption of ammonia. At my request, Mr. E. K. Twining, of the Yale Scientific School, has made some determinations of the quantity of ammonia in stone gas limes. The results are as follows. In each instance duplicate analyses were made:

	No. 1.	No. 2.	No. 3.
	per cent.	*per cent.*	*per cent.*
1st estimation,......	0.790	0.039	0.035
2d "	0.800	0.038	0.035

No. 1 gives the amount of ammonia in the perfectly fresh gas lime from the New-Haven Gas Works. This lime possesses a brown color and powerful odor of gas-tar and of ammonia. Nevertheless the odor is no guide as to the amount of ammonia. Lime No. 2, is from the Waterbury (Conn.) Gas Works. It was a week old at the time of collection, and had no odor of ammonia. No. 3, is from the same gas works, and had been exposed to the weather for one year or thereabouts, and is perfectly white. It is obvious that the ammonia which is contained in gas lime is of small account at first, and, after a few days' exposure to the air, is almost totally lost. We can not expect therefore to trace any good effects to this ingredient of gas lime.

It is obvious that gas lime, containing as it does when fresh, considerable caustic lime, cannot retain more ammonia than would adhere to any similar moist and porous mass, that had been exposed to an atmosphere of ammoniacal gas. Doubtless no gas lime can be found, that even in the freshest condition, contains one per cent. of ammonia. As to the other ingredients of gas lime, there are several per cents. (in one analysis by Prof. Johnston 14 per cent.,) of soluble sulphite and hyposulphite of lime. What the effect of these bodies on vegetation may be, is not known, but probably 24 hours could not elapse after the lime is spread upon the soil, before the whole of these bodies would be converted into sulphate of lime or gypsum. Besides these bodies, carbonate of lime is a large ingredient, 50—70 per cent. I am of opinion that a bushel of common oyster-shell or stone lime, mixed with a bushel of gypsum is fully equal to two bushels of gas-lime in final fertilizing effect. Possibly the solubility of the hyposulphite of lime may make the gas-lime more active. There is, however, another ingredient that probably may have important uses, and that is the gas tar of which 5 or 6 per cent. are present. The powerful odor of this substance would probably keep away most insects from the crops to which gas lime may be applied. This odor is at first heightened by that coming from the oxydation of a ¼—½ per cent. of sulphuret of calcium which the fresh lime contains. The latter, however, lasts but a short time; the odor of the gas-tar is more durable. An acquaintance who attempted a trial of gas lime last year, found it destroyed the seed (potatoes, I think,) when put in contact therewith.

I conclude that while gas lime is not to be thrown away, but is to be used wherever it can be obtained, no undue notions of its extraordinary fertilizing effects are to be entertained, and especially no great benefit must be looked for on account of its ammonia. I leave to practical men to decide from their own trials, whether it be worth one cent per bushel more than fresh lime.

If the gas-lime has a *peculiar* manurial value, this it would seem must depend upon the soluble compounds of lime, and as these are rapidly oxydized into sulphate of lime on exposure to the air, the fresher the gas-lime is applied to the soil, the greater should be the benefit it yields. S. W. Johnson. *Yale Analytical Laboratory.*

Machines for Cleaning Wheat, &c., for Seed.

Several machines constructed for the purpose above named, were in the collection of agricultural implements at the late Exhibition at Paris. Whether for grinding into flour, or for use as seed, the French seem to be at greater pains in cleaning wheat and all the cereals, than the British or Americans. In this neglect of the latter parties to obtain the very best portions of their grain for seed, we have certainly something of the nature of an anomaly or inconsistency, for the same parties are very far from being neglectful in the selection and pairing of the domesticated animals. Now the proposition is not only plausible, reasonable, and in accordance with analogy, that good, sound and perfect seeds will produce better plants than seeds less perfect, but it is also abundantly supported by the experience of cultivators both with garden and field crops. Gardeners, especially market gardeners in the neighborhood of large cities, are at great pains to procure *the very best quality* of seeds. From such facts and considerations it seems evident and unquestionable that where grain is to be employed as seed, it is of no small importance that it should be cleaned, not only of all noxious seeds, but also of all imperfect, small, weak or damaged kernels.

In the columns of this paper the importance of care in the growth and preservation of the choicest seeds for planting or sowing, has been frequently insisted upon, and various suggestions have been made as to modes of securing the most perfect specimens. As hand picking is practicable to only a very limited extent in the case of wheat, rye and other cereals, as it is in the case of Indian corn, resort to machinery seems the only admissible method of preparing the best possible quality of seed for *ordinary* purposes. For *extraordinary* purposes a few heads or a small parcel of some of the best grains might be supplied by hand-picking or separate culture, as experiments are tried with the small quantities of rare seeds which are issued annually from the Patent Office.

It seems to us that if some enterprising individual in a community of enterprising farmers were to own a machine for the effectual separation of the smaller and weaker or damaged kernels of wheat, it might be used enough for his own purposes and for those of his neighbors, to remunerate him abundantly for wear and tear, and a large interest on the cost of the article. In the accounts which have been published of the articles sent to the late Paris Exhibition, one machine is described which appears to have been admirably adapted, not only for the most thorough cleaning of grain for seed, but also for separating the plumpest grain from the sample. As a machine for dressing grain to be used as seed, it was generally accounted superior to any other. It is described as consisting of a cylinder over six feet in length. This cylinder is divided into four parts having a different form of holes in each. The first has six rows of oblong holes cut lengthways, with three rows of round holes intervening. Through these pass most of the seeds of grasses and other small seeds, dust, &c. The second and third compartments are perforated with round holes—those of the third being rather larger than those of the second. These two compartments separate inferior grain, and the larger seeds of grasses, &c., which have not previously passed through the holes. The fourth compartment is perforated with oblong holes, cut lengthways to the diameter of the cylinder, and finishes the work of freeing the grain from all imperfect or undersized kernels, which is then delivered at one end of the machine. At the other end is a hopper with a slide and spout by which the grain is conveyed to the cylinder. The cylinder turns round slowly, moved by wheels and pinions as in a common fanning-mill. There are boxes beneath each compartment to receive the refuse and inferior grain which is separated. By a machine of the size of that exhibited, 120 bushels can be cleaned in a day; by one of a larger size 32 bushels can be overtaken in an hour. The cylinder may be made of sheet-iron or zinc. The price of the machine varies from about $22 to $28.

There were several other machines for the same purpose on exhibition. Nearly the whole were upon the principle of revolving cylinders. They are used, in France, to prepare grain for market, enhancing the price, by cleaning it of all extraneous matter; for cleansing grain for seed; and, lastly, for cleaning grain before grinding in flour-mills.

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Thick and Thin Sowing.

Messrs. Editors—Having noticed in the Country Gentleman, an article or two on "Thick and Thin Sowing," and "Proper Quantity of Seed to an Acre," I can by my own experience confirm the suggestions and statements of others. From observation of thrifty growing crops, I have long been satisfied and convinced that a less quantity of seed will do; for on inspection of stout growing grain, it is very evident that the number of plants growing on a given space of ground is far short of the number of seeds sown. Very often I have examined winter wheat before harvest, by counting the number of roots or plants growing on a square rod, and weighing an equal number of grains, have ascertained that where one and a half to two bushels seed had been sown, only from six to eight quarts per acre were actually growing at harvest time; and while living in western New-York, have repeatedly sown only half a bushel wheat per acre, on part of a field, and have always found that if the plants were fewer, they always spread out more and filled better than on other parts of the field, where they were crowded by over-seeding.

In April, 1854, I sowed a field of 20 acres to oats, except a piece of about an acre, on which I sowed 2 bushels peas and half a bushel oats mixed. This piece lay on one side of the field, and was of the same average character as to quality or surface. I finished sowing in the afternoon, and expected that the teams would finish the whole field by sundown; but having too much ground to go over, the pea ground was not touched. The next night it rained, and continued wet for three days. Six days after sowing, I directed a hand to get the harrow, and if the peas were not much sprouted, to finish it, which he did by harrowing it over once; and on going to the ground afterwards myself, found that the peas by so doing were mostly spoilt for growing. They had sprouted from two to four inches. The oats, however, grew well, and for some time before harvest they could be plainly distinguished from the road by a darker color and taller growth. At harvest time, and in hauling to barn, and from the comparative number of sheaves and yield, the piece was estimated by every one, to yield at least ten bushels more per acre, than the balance of the field, on which I averaged two bushels seed per acre, all sowed on the same day. The piece, or pea ground, contained by measurement after harvest, 180 rods, and no peas of any consequence grew on it. The whole field averaged 56 bushels per acre. Wm. Plocker.
Metomen, Wis.

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Corn Culture and Billings' Planter.

Messrs. Editors—Reading in the Country Gentleman a year or two ago an account of a piece of premium corn raised by your correspondent the Hon. J. W. Colburn of Vermont, in which he stated his corn was planted with a machine which dropped the seed and a fertilizer also at the same time, and wishing to procure a machine that would deposit guano or some other fertilizer along with the seed, I wrote Mr. C., inquiring with regard to his machine. He answered me, saying the one he used dropped the corn satisfactorily, but was imperfect or nearly useless, in dropping the fertilizer. I afterwards pursued the inquiry, till last spring I heard of Billings' seed planter and fertilizer; and procuring one, I used it in planting several acres of corn and beans. Its operations were entirely satisfactory, dropping the seed and fertilizer, covering and rolling the same, all with perfect accuracy, as fast as a horse could walk. It is light, and at the same time substantially made. It is easily drawn by a horse and guided by a man, and is capable, with ground in good order, of planting 6 to 10 acres per day. It may easily be regulated to drop seed at almost any required distance, and answers a good purpose for drilling corn for fodder. It is also capable of dropping corn and beans in alternate hills, and a fertilizer with either or both at pleasure. I cannot but regard this truly labor-saving machine as a good one, and one much sought for by farmers at the present day, when so many fertilizers are used, such as guano, superphosphates, &c.

I believe it is now generally conceded by all our best corn-growing farmers, that green-sward, well turned over in fall or spring, is our best ground for corn. Hence the propriety of using a small amount of some active manure to assist the plant in the earlier stages of its growth. To apply any fertilizer by hand labor, is slow, tedious, and expensive too. Indeed to plant any considerable quantity of ground either with or without a fertilizer by hand, dropping and covering, seems to be out of the question, as our planting must be done at just the right time, and that time is always when everything needs to be done and every body is busy. And hence the inquiries, Messrs. Editors, that have appeared in your valuable papers and other agricultural papers, for a machine to do the above work. The inventor of this machine I believe has succeeded in giving us one as near perfect at we have a right to expect. I will add that they are manufactured in South Deerfield, Mass., by E. C. Fairchild & Co., and are known as Billings' Improved Planter and Fertilizer. A. C. J.

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Cure for Rot in Sheep.

Messrs. Editors—In your last Co. Gent., I observed Mr. Ambler of Virginia, wished information that will assist him in curing or getting rid of the rot in sheep. And you also expressed a desire to hear from any of your readers in answer to the above. Having had some experience in curing this disease, I give the following as a sure remedy: Make a strong decoction of rue, adding to it what salt it will dissolve, and when cool, it is ready for use. The remedy is a simple one, but I doubt simple as it is, whether a more successful one can be given. Chas. Read. *Pittstown, N. Y.*

Pears in Old Orchards.

I have an old apple orchard, wherein the trees have to a great extent died out. In these vacant spots I propose to set pears; placing those on pear stocks 20 feet apart, (the original distance of the apple trees,) and those on the quince between.

Now I would like to know whether pears, thus set in this old orchard, will thrive or not, the ground having been well improved by manuring and cultivation?

Which are the 10 hardiest varieties of pears for this northern latitude—5 for pear stocks and 5 for quince? S. S. Bailey. *Canton, N. Y., Feb.*, 1856.

A pear orchard will not do so well set in an old apple orchard, as on fresh land. If, however, the soil is strong, and naturally adapted to the successful growth of the pear, they may possibly succeed well, especially if the roots of the old apple trees have decayed thoroughly in the soil.

The following pears will probably succeed well at Canton. *On pear stocks*—Bartlett, Seckel, Flemish Beauty, Virgalieu, Sheldon, Winter Nelis. *On quince*—Louise Bonne of Jersey, Tyson, Angoulcme Winkfield, Osband's Summer, Glout Morceau.

Protection of Seed Corn.

Messrs. Editors—After reading G. E. H.'s experience, in preparing seed corn, in the Country Gentleman of Feb. 21, and fearing that some farmers may take his *experience* for *advice*, and lose their seed, by soaking, tarring, plastering, or otherwise injuring their seed, I will offer some of my experience.

After trying experiments of every description that I could read, or think of, in preparing seed to forward the growth, prevent the destruction, or increase the quantity of corn, for eight years, in which I have cultivated from twenty to fifty acres of corn per year—I have come to the conclusion that the most *sure* way to have the seed "*come up*," and do well, is first to manure and prepare the ground well—plant *good seed, clean as it came from the cob.* This never fails with me; all variations from this *have* failed under different circumstances.

To prevent the seed from being destroyed by hens. The pig, with a full belly, will never root around; the hen, with a full crop, will not scratch the ground. Therefore—when my hens are disposed to *scratch*, I call them up to the barn, and give them as much corn as they will eat, for which they always sing to me a merry tune, and lay a whole hat full of eggs.

To prevent crows from pulling corn. I scatter corn in the field broad-cast, which they feed upon and leave the seed. If I have too much company by my liberality, I soak the corn in strichnia and hot water. Last spring, after scattering half a bushel of corn soaked in this way, I picked up forty-two dead crows, and how many more went off feeling "kind o' sick," I am not able to state.

Wire and grub worms are more difficult customers to deal with—for any poison used for their destruction, is always absorbed by the soil, which is a sure protection to them. I have never found a *sure* remedy for these pests; and can only secure my seed by planting enough for their wants and mine too, and if they get more than their share, I plant new hills a few inches from the old ones thus destroyed, and "thin out," at second hoeing. M. J. P. *Cream Hill, Rutland, Vt.*

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☞ The Commissioner of the U. S. Patent Office, will please accept our thanks for several parcels of seeds, recently received, which we shall distribute to those who will make good use of them.

Stabling Milch Cows.

My method of stabling is—in a 30 foot stable, put stanchions for 10 head—the first floor plank running back with 3 inches incline. Then for them to stand on, I put 3 inch plank across to the width of 4 ft. 4 inches back from the bed-piece. The first should be an inch board instead of a plank, 18 or 20 inches wide, the sink to be filled with horse manure or chalf, to keep thier knees from getting sore when getting up and down.

I keep my cows in the stanchions, about 22 hours, letting them out about 2 oclock to drink. I find they require much less food than those that are fed out and are larger too. My cows are as clean as in summer. I find that the milk is of a better quality. It makes better flavored and yellower butter. I find too, they are much safer to calve in the stanchions than any other way; less liable to take cold, and their calves are as safe as though they were loose. It is my practice to feed what calves I raise, and never let them suck the cow, as they learn to feed quicker, and the cow is much more quiet at giving up her calf. A Subscriber. *Brookfield, N. Y.*

Stretches in Sheep.

Messrs. Editors—In the Country Gentleman of the 7th Feb., I notice an article by John J. Craig of Indiana, in relation to a disease among his sheep. From his description I conclude it is what is commonly called "stretches." Cases of this disease, are of frequent occurrence in my flock. It is intussusception of the bowels, and unless it can be removed in the first stages of the disease, inflammation ensues, which always proves fatal.

My mode of treatment is as follows: I hold up the hind legs of the sheep as high as may be and still let it rest on its forward feet, during about ten minutes. This generarlly cures, if taken when first attacked Reliet is sometimes given by laying the sheep on its back, and pressing suddenly the belly and sides for a few minutes, which may be done without pain to the animal, as at this stage of the disease there is no tenderness. I have also cured them by putting them into a yard alone, and making them run till the blood becomes somewhat heated. During the last two years I have treated in this way, at least twenty cases of this disease, and have not lost a sheep by it. A. Thomas. *Ceresco, Wis.*

Cure for Corns on Horses' Feet.

Messrs. Editors—In one of your late numbers, a correspondent inquires the best cure for corns in horses. I have a very valuable horse, that, from carelessness and inattention, was corned in his 4th year. My blacksmith wished to cut it out, but my own judgment said no. I had his shoes pulled off, took him home and turned him out. This was in May; in October I took him to the same blacksmith, and he declared his hoof to be sound and without blemish. I have seen it tried several times—always with success. I never saw a case where the knife was used that did not materially injure the value of the animal. Burning is one remedy, but I consider it worse than cutting. We all know that an easy shoe will cure corns on our own feet quicker than any other remedy. The two cases are parallel A Subscriber. *Louisville, Ky.*

Butter Making, Shade Trees, &c.

MESSRS. TUCKER & SON—In the Country Gentleman of the 7th Feb., there is an inquiry made by an Old Subscriber, "Why his butter will not come?" He relates the process which he goes through as follows:

"Our milk-maid always saves about two quarts of strippings every time of milking, that is put in the cream crock, with a little buttermilk, at the start."

Saving strippings is right, and the more of the milk you churn the sweeter and better will be the butter. Why the buttermilk is put in the crock, unless it is to make the butter rancid, I cannot conceive, as it certainly will not in the least contribute to bring the butter, nor should the cream be tempered by mixing boiling water with it, as that has a tendency to make it "froth and foam," although this is the usual method of warming cream in cold weather.

To prevent the difficulty of which he complains, I would recommend what I regard as a sovereign remedy. Put the cream in a tin-pail, and put the pail in a boiler which is sufficiently full of hot water to warm the cream to the proper temperature, which should in all cases be tested by the thermometer, where persons have not experience sufficient to enable them to arrive at the proper temperature, which is about 65 degrees for warm weather and 70 degrees cold. I do not know anything about your atmospheric churns, having always used the old fashioned one; large at the bottom and small at the top, with the least taper possible so that the dasher can move all the cream every time it goes up or down, and it should go clear to the bottom and top, so that all is churned at the same time; and no witches can prevent the butter's coming, for old or new subscribers.

Butter with and without Salt.

And I have still another customer on hand on the subject of butter making, who is very unlike the Old Subscriber, Mr. BOISE, who seems to be in search of knowledge without difficulty. In the Country Gentleman of the 14th Feb., he says:

MR. DICKINSON states that "butter does not require salt to preserve it, any more than lard"—that "salt is only necessary to flavor," and that "Liverpool salt must be used." In New England we think best to put a little salt into lard which is designed for summer use, and that ground rock salt is best for butter. If he thinks that butter and lard do not require salt to preserve them through the heat of summer, then why does fat pork? Let him try his pork without salt, and see if it will keep sweet through the heat of summer.

I cannot help what Mr. B thinks in New England. I know a man in New England who put up more than 10,000 ferkins of lard in Indiana without salt, and sent some of it round the Cape to California, as I did myself in 1851, and that too without damage. Do the whalers put salt in their oil when they render it, or does it keep without? There are not many New Englanders but what know that salt in oil, lard, or tallow, would make sluts of candles, spluttering lamps, and surplus lard is used for both, when cheaper, mixed with tallow, and manufactured into oil. I know how to render lard so as to keep without salt, and so do ninety-nine out of every hundred men or women, who have had any experience. All that is necessary is to try lard sufficiently to take out every particle of flesh and water.

I know many good housewives who throw in a small handful of salt in a ferkin of lard when rendering, but never knew so much put in that it could be tasted. I do not know how to keep pork without salting it, and if Mr. Boise does he can get a patent right and make a fortune. And I know how to make butter that will keep without, as well as with salt, by washing every particle of milk out, with soft water, and working it down, solid and firm; then put it in a package and deposit it in some sweet place. And I know how to make tallow, taken from the same cow, keep sweet without salt, but have never learned the art of keeping the fat or lean meat without salting, and when Mr. B. learns how, I will be much obliged for the information.

If Mr. Boise knew much about the manufacturing of butter in this or other countries, he would have known that in England much butter is made without salt, and the most of the Dutch butter formerly was not seasoned until it was put on the table, and then all salted to suit their own taste.

I am well aware that there are but few butter makers who can make first quality of butter, and therefore cannot make butter that will keep without salt, for the reason that it requires patience, skill, and much labor, to get every particle of the milk out, and most certainly buttermilk will not keep without salt in butter, and poorly with. I did not recommend making butter without seasoning it for use or sale. My object was to test a principle, whether the buttermilk could be all washed out without spoiling the grain, *with hard water.* By making and putting down a crock without salting, if there is anything wrong, either in the making, or the food on which the cow feeds, it will develop itself in its true character more clearly than if salted, and every butter-maker should make (that is to say new beginners,) a crock of unseasoned butter occasionally to test his skill, and all the materials from which his butter is extracted, as it is more sensitive than any or all other eatables, manufactured from the vegetable world. If every particle of milk is not got out, it will spoil as soon as lard or tallow will without being rendered, and either, being properly done, does not require salt to preserve, any more than flour does, that is made from dry wheat, which grows on hard water land, which is worth in the New-York market one dollar, or at Mark Lane, two dollars more per barrel at present prices, than any flour manufactured from wheat that grows on soft water land.

The Best Salt for Butter.

I recommended Liverpool salt for seasoning butter. This New England farmer says "ground rock salt is best for butter." In this I may be mistaken, and Mr. Boise right. If so, I am very happy to stand corrected as I am desirous of learning everything pertaining to farming; and if there is any one thing that I dislike more than another, it is a man recommending to others that which he knows nothing about himself. Now what I mean by Liverpool salt, is the rock salt taken from the most extensive mines in the world, in the neighborhood of Northwich in Cheshire, which have been wrought some two hundred years, *a sufficient length of time to be known to young farmers.* The rock salt is taken from the mines; and to purify it, it is dissolved in sea water, from which it is afterwards separated by evaporation and crystalization, ground, and made better, as I think, for seasoning butter. I have used in my business, rock salt from the principal mines of the world, in packing beef and pork in the western states, to wit, the mines of Widitaka in Poland, Catalonia in Spain, Altemonte in Calabria, Loowur in Hungary, and from some unimportant mines in Asia and Africa. I do not regard any so pure and good for butter as the rectified salt which may be taken from other mines, and have never seen the first pound of first quality butter, one year old, seasoned with any other, and I would recommend its use to the lovers of good corned beef, for summer use.

Several years since when I was engaged in making butter on a pretty large scale, a gentleman in New-Orleans, had considerable of my butter, and having got out in June, of eatable butter, he wrote me to send him two firkins of good, without regard to expense, which I did, and made them both on the 4th of July. One I salted and the other I did not. I packed each in a barrel of salt, that is to say, I took the salt out of the barrel within 3 inches of the bottom and then placed the firkin in the barrel and packed the salt all around, and headed the barrel up. I sent it in the night twelve miles on a waggon, and had it put in the hull of a canal boat, and sent to New-York, where it was reshipped to its place of destination. He sent me fifty cents per lb. for it

And for Mr. Boice's benefit, I will insert a portion of his letter: "I herewith enclose a draft on New-York for one hundred dollars, for 194 lbs. butter, the best I ever saw, and all who tasted of it say the same The unsalted package was, beyond a question, the best ever in this market, as it was considered by both dealers and epicures. The Dutch gentry, who think there is no one except their own people that can make any unsalted butter worth eating, would not believe it was made in New-York until I showed your letter. I want 75 firkins of your butter this fall—15 or 20 without salt, and I will pay you the highest market price."

I washed and worked the most of the unseasoned butter with my own hands, with soft water, which was brought a long distance, though there was a well of cold limestone water convenient to the dairy-house, which I had tried to my entire satisfaction, and abandoned its use for butter.

Shade Trees in Pastures.

Mr. B. does not believe my theory in butter making because he suspects I am the man who advised the farmers last year " to cut down their beautiful shade trees, to prevent cattle from cooling and screening themselves from the hot summer sun, that they may the more readily fatten."

Let me say there need be no suspicion on this subject. I am the very man; and if Mr. B. is a farmer, and understands his business, and will read and reflect, I will tell him a short story about shade trees that will do him good, when he gets to be an old man.

In fattening cattle in pastures, I became thoroughly convinced that shades were injurious, by fatting in fields where there were and where there were not shades, the pasture being equal. Convinced as I was in my own mind, by many fair tests, and the judgment of experienced graziers and butchers, I could not think of cutting down the trees which had cost me so much and looked so beautifully without a farther test.

I then procured a pair of scales on which I weighed steers and oxen selected with great care, and tried the experiment, and I found those where there was no shade increased from five to ten pounds per month more than those where there were shades, making a difference in the value in favor of those exposed to the sun of three or four dollars per head in six months. This difference, for beauty or comfort, was quite too large for my purpose; and when I knew the fact, the reason. was quite plain. The cattle lay under the shade during the day, and ate the grass at night when the dew was on, which swelled it so that they could not eat as much; and grass is not so strong that cattle can eat so much as to cloy them if they should eat at the time when they could take the greatest quantity—(not so with grain)—and the lazy rascals will lie under the shade when they are hungry, if you give them a chance.

And now, Mr. B., if you have had no experience in fattening cattle, if you have ever raised corn, let me ask you if you know of an acre of ground where you can raise fifty bushels of shelled corn to the acre, with ten large beautiful shade trees scattered all over it. Cut down the trees and bring the land to, and I can raise seventy five bushels, which, at one dollar per bushes, would be twenty-five dollars per acre in lieu of the shade trees. If two and a half bushels should be regarded as too large a calculation for a tree, it should be borne in mind that the roots of trees on some soils extend three rods each way, and drink up the moisture and virtue of the soil which common farmers need for the growth of plants. And yet I do not advise Mr. B. to cut down his trees, if he has money enough to support his farm, or does not consider it an object to get seventy-five bushels of corn instead of fifty to the acre. If he can afford to have his farm covered with forest shades, I can not. I would advise those who till the soil for profit, to cut down the shade trees in their fields, and to set them about their dwellings where they will not injure their gardens, and take the best of care of them. A. B. Dickinson. *Hornby, N. Y.*

Cut-Worms and their Destruction.

Editors of the Country Gentleman—Reading in the last two numbers of your paper, the interesting account of the "cut-worm," and its habits, by Dr. Fitch, I was reminded of an exterminating war that dates back to 1840. I will give actual experience, and the result a sure remedy for the mischief of the worm, that has not failed for fifteen years.

E. Risley & Brothers, (myself being one of the number,) had a piece of onions, containing three acres, which, after being wed out the second time in June, when all were standing well, were entirely destroyed by the worm, and the land was plowed up. Twenty hands were engaged for more than one week to save the crop, and in that time there was bushels of the worms destroyed—(this will appear incredible, but it is true)—as some of the hands gathered them in cups so that an accurate account could be kept. In this case there appeared a kind of necessity that generally precedes invention. Late in the fall the land was plowed, and in the winter, it being open, it was again plowed. and the practice of fall plowing has been yearly kept up, and in winter when possible, and the result has been perfect safety from injuries by the worm. Before the time mentioned, the onion crop was often much injured, and always a large surplus of small onions were left to provide for the ravages of the cut worm, which caused great addition to labor in thinning out.

I am inclined to believe, however, that the egg that produces the worm is hatched in the spring, and not in the fall, as stated by Dr. Fitch. The miller, like all that class of insects that occupy two annual stages, the worm and the miller, deposits its eggs in the fall and dies. In the spring, as warm weather approaches, the worm is produced, and the same amount of warmth that brings forward the tender plant, matures the worm to destroy it, and so rapid is its career that two or three weeks ends its work in that capacity. If the worm lived through the winter, there would all sizes appear early in the spring, but the first seen are not more than one-eighth or one-quarter of an inch long, and all about the same; therefore I conclude that the eggs are deposited in the fall, so protected that if left undisturbed, they would produce the worm, but the plowing changes their situation, and so exposes them that they are destroyed.

My observation has also induced me to believe that the worms, though active in the night, are not such pedestrians as to travel from field to field. I have known, where land was prepared by plowing for the crops the worm would destroy, and only separated by an alley six feet wide from land where roots were set for seed, and consequently as there was no fear of the worm the land was not plowed in the fall, that the worms were so numerous that they would cut down down beans or cucumbers about as fast as they would come up when planted among the other crops, and would also cut off the leaves from seed onions, but rarely if ever pass this alley, where small and tender plants the worms most relish were standing; although the worm would probably go much farther in some other direction; as no green plants were growing in this alley there would be little inducement for them to cross it. Wm. Risley. *Fredonia, N. Y.*

Southern Peaches.

The Southern States possess remarkable advantages for the cultivation of fruit. Instead of only *two months*, the extreme length of the peach season at the north, they may enjoy peaches at least *five months*, by a proper selection for succession. What a field is open there for energetic, enterprising free labor, in supplying northern markets! But little can be expected while all the labor and skill is placed in the hands of those who have no stimulus of interest to prompt the work of their hands. Peaches begin to ripen in all the States bordering on the Gulf of Mexico, and in similar latitudes, by the first days of summer, or more than two months before the maturity of the same sorts in the Northern States; and thousands of acres there, planted with early sorts, might find a ready market for their crops, throughout the northern cities, and along the lines of all northern railroads. What a rarity a basket of large, rosy-cheeked, melting peaches would be here, just at the time our earliest strawberries and cherries are ripening! The trees grow rapidly there, and come quickly into bearing; a little labor, and a good share of skill, would soon open immense opportunities for acquiring wealth, for northern markets would absorb the early crops, as a parched desert absorbs a summer shower.

These remarks, which have often before occurred to us, are prompted at the present moment, by an excellent article on southern peaches in the Southern Cultivator, from Robert Nelson, a well-known and intelligent cultivator of fruit, now residing at Macon, Georgia. He states that when he first went there, the remark was often made to him, " Now you have come to the land of peaches; now you will see peaches, such as you never saw before!" And this, he adds, was true; for he had " never before seen such an abundance of mean, dry, hog-peaches, as those that abounded there!" "Their season was confined to about *six weeks*, or from the middle of July to the end of August," while since that time, the introduction of the best varieties, and the propagation of some new sorts, has given them " peaches of the very best quality, ripening in succession for five months, or from May to November."

The descriptive list furnished in the article alluded to, comprises 36 varieties, of which we observe 27 sorts are introduced from the North. The earliest named is the

May Peach, ripening at the end of the month of the same name, is small, four inches in circumference, with a white skin and flesh. Its origin is not given—but we should think it might be the old *Early White Nutmeg*.

Early Anne—" ripens the first week in June—crops always fair and regular—five inches in circumference—very juicy, and of delicious flavor." It is evidently much larger and more valuable than at the North.

Early Tillotson is larger than with us, " measuring about six and a half inches in circumference—ripe the 15th of June—very productive—perhaps the best of the very early peaches."

Serrate Early York, ripens a few days after Tillotson, and is about seven inches in circumference.

Among the peaches well known at the North, the following ripen during the first half of 7 mo., (July,) but do not appear to grow much larger than with us, viz: Yellow Rareripe, Walter's Early, Grosse Mignonne, Van Zandt's Suberb, Bergen's Yellow, Crawford's Early, Red Rareripe, and George IV. The following varieties mature during the last half of the same month, viz: Oldmixon Free, Congress Clingstone, Green Catharine, Late Admirable, Brevoort, President, Crawford's Late. The following are ripe during the first half of 8 mo., (Aug.,) viz: Columbia, Newington Clingstone, Late Rareripe, and Druid Hill; and the following during the last half, viz: Lemon Cling, La Grange, Kenrick's Heath, and Heath Cling.

With the exception of the " *Pavie de Pompon*," a well-known French peach, all the autumn peaches named in this list are of southern origin; among which are *Watkin's Cling*, a seedling from the Heath, ripening some days later; *White Globe*, a clingstone, " very juicy, with a luscious and highly aromatic flavor, ripe Sept. 8th;" *Demming's Orange*, " a beautiful yellow clingstone, ripe Sept. 15th;" *Baldwin's Late Free*, " large, oblong, juicy, melting, well-flavored, ripe Oct. 20;" *Nix' Late Cling*, " firm, juicy, well-flavored, ripe Oct. 20, and like most late peaches, *will keep several weeks*;" and *Thomas' November Cling*, " flesh white, very firm, juicy, highly flavored, ripe Nov. 1st to 12th."

Among the earlier peaches of Southern origin, we observe the *Hewellen*, " the earliest clingstone —superior flavor—bears carriage well—very regular bearer—a splendid peach, ripe July 1st." A few hundred thousand bushels of this variety would be eagerly purchased at the North, we have no doubt, and we hope that somebody will undertake to supply us, thus a month or more in advance of our earliest sorts.

The *Yellow Rareripe* is nearly as early there, and is often eight inches in circumference. Nelson states that he has sent *Crawford's Early* to Saratoga Springs, where it arrived in beautiful condition, and created quite a sensation, being nearly two months before its time of ripening here. *Congress Cling* has been shipped from Macon to Boston, where it arrived " in first-rate condition." The *Columbia* grows to a great size in Georgia, often measuring eleven inches in circumference, and weighing fourteen ounces. It bears carriage well, and has often been sent to New-York, arriving there in fine condition, but it does not ripen at the South till Northern peaches are abundant.

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Profits on Potatoes.

Messrs. Editors—In looking over the Feb. number of the Cultivator, I noticed a piece headed " Profits of Potato Raising," which induced me to send the following I raised on one-half acre of land last season, 119 bushels of as nice Carter Potatoes as I ever saw, on which I obtained the first Premium of five dollars, of the Rutland Co. Ag. Society. They were raised on a side hill—soil gravelly loam--that was in corn last year, without manure, except one bushel of plaster each year. Estimated expense of crop, $21.50—119 bushels of potatoes, at 50 cts., $59.50—profit on one half acre, $38. John Barden. *Wells, Vt.*

Training Colts.

Messrs. Editors—I have noticed two or three articles in The Cultivator, in reference to training colts to the halter. It is generally an easy matter to learn a colt to lead, if taken at a proper age, and the process is properly conducted. In doing it, the utmost care and kindness should be exercised. The person who undertakes the work should be able to *control himself*. He should not get angry or impatient in doing it. Very little force will usually be required, if the colt is properly handled. I do not agree with "A Farmer," in your March No., that "the best time is as soon as it is fairly on its legs." The colt is then weak, and there is danger of its injuring itself by resistance. At that age it is too young to *learn* readily, and I think all processes in training horses should begin by learning them what you would have them do.

A colt at six or eight weeks, is old enough to commence with, and not so strong but two men can easily manage it, and a less number will be insufficient to do the work properly, as there will be danger that he will struggle and throw himself, thus endangering life and limb. The operator should be sure that his halter is one that will fit easily to the head; one that will buckle is preferable. Put the dam in a stall and let the colt have a place by her side, and it will be easy, by a little coaxing and care, to put the halter upon it. Then let both dam and colt into an open place where there is plenty of room; let one get the halter and at the same time another take his place in rear of the colt to push him forward, while the other pats him and pulls lightly upon the halter. The colts will soon learn what is wanted, and follow the lead of him who holds the halter. Care should be taken that he does not pull back and throw himself. The principal force applied should be by the rear operator. When he has partially learned to follow the leader, hitch him to the harness of the dam, so that he can reach forward to her head, and lead her forward, having one in rear to push him if he hangs back. I have in this way learned colts to lead in 30 minutes' time, and that without their throwing themselves at all. G. C. M. *Amherst, Mass.*

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A Cheap Way of Dissolving Bones.

The fertilizing properties of bones have long been placed beyond a question. The great difficulty has been to make their fertilizing properties easily and cheaply available, by all persons engaged in agriculture, however limited their knowledge. In their natural state, bones cannot be rendered available for purposes of fertility, and it is in consequence of this fact that so many bones are turned to no practical account. The same objection does not hold against pulverized bones; but bone mills are not common, and if they were, I question whether one person in ten would avail themselves of their advantages. That bones can be dissolved by diluted sulphuric acid, is a well known fact; but, in consequence of the expense, trouble, &c., not one farmer in a hundred has ever thus effected their solution. Manufacturers have converted bones into superphosphate of lime, and, when honestly made, it is a valuable fertilizer; but its price, especially when carried far from the place of manufacture, will prevent its general use. The object of this article was to call attention to a cheap and sure way of rendering bones available for agricultural purposes, that every farmer might be induced to save those accruing upon his own farm, and turn them to valuable account.

A few years ago it was asserted that ashes would dissolve bones; but, on further trial, they were found to do so only imperfectly, and then only when crushed. Their value, when applied to clover, wheat, and turnips, to pear trees, grape vines, and old pasture lands, is such as to render it desirable that they should all be turned to economical account.

When getting out manure, a year ago last spring, from my horse barn, I discovered several white, pultaceous masses, which, on examination, proved to be bones in a perfectly pulpy state. Their change could only be accounted for on the supposition that the horse manure had, by some unknown means, affected their disintegration. The thought occurred to me that this accidental discovery could be turned to good account. Accordingly, during the ensuing year, all bones from the kitchen were thrown into the manure heap constantly accumulating from the horse stable. Last fall that manure was removed to my orchard, and the bones were found in a soft and pulpous condition. The bones used were all fresh, and hence I know nothing experimentally of the effects of horse manure upon old bones.

It is but just to observe that, since these experiments were made, I have seen a short article, detailing similar experiments, in some paper, copied from an exchange without name or credit. Hence, facts like the above may not be new to some of our readers, yet I trust the importance of the subject will justify a repetition. O. C. Gibbs, M. D. *Frewsburgh, Chautauque Co., N. Y.*

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A New Wind Power.

Messts. Tucker & Son—I have read with much interest Mr. Nutting's communication in the Country Gentleman of Feb. 14th, describing a new wind power of his invention.

How the American mind is roused up to the subject of wind power!—In less than two years there have been issued at least 13 patents for self-regulating wind engines. If desired, I can, in another communication, give your readers a full list of the patents, the time they were issued, the names of the patentees, &c. The subject is a curious and instructive one.

Of these 13 wind engines, three are horizontal, with upright shafts and horizontal arms. In two of them the wings are also horizontal.

Mr. Nutting informs us that after two or three months study he has produced "a very greatly improved wind power, which" he thinks, "cannot fail to supersede all wind powers now in use, and be an exceedingly useful thing to every farmer and mechanic."

He goes on to speak, very justly, of some of the superior conveniences of a horizontal wind power, with its upright shaft, ease of adaptation, cheapness &c.

I am happy in being able to state to your numerous readers that all the advantages and conveniences which Mr. Nutting proposes to secure by his invention have been already obtained, and even more than he specifies.

A cheap motive power is no longer a problem. That which has been so long desired, and so earnestly and perseveringly sought for, has, at length, been obtained. A patent was recently issued to the subscriber for a new wind engine of a very simple and cheap construction. It is a horizontal self-regulating wind mill with horizontal arms and horizontal wings—the arms inserted in an upright shaft, and the wings, by the sole action of air in motion, presenting their broadsides, or their edges, to the wind.

I enclose a description by another hand, which was written more than a month ago. Benjamin Fenn. *Hartford, Trumbull Co., Ohio., March* 14, 1856.

Messrs. Editors—In a recent number of your paper I notice an inquiry about wind mills for farm-purposes. The Rev. B. Fenn, of this place, has lately obtained a patent for a new wind-mill, which is self-regulating, has no vane, or tail piece—is always ready for the wind whatever quarter it blows from, and is considered by competent judges superior to any ever made. It is simple, *durable*, and *costs but little*. As it can be made chiefly of wood, a common mechanic, or the farmer himself, if he has an "eye," can readily make one. It is emphatically, the farmer's wind-mill.

The machines of small size operate to entire satisfaction. The recent issue of the patent and the severity of the weather have prevented its trial on a more extended scale. The invention, no doubt, will work admirably and supersede many previous ones. It must be a desideratum to farmers and others desiring a cheap motive force below 5 or 6 horse power, and well adapted for sawing wood, turning lathes, grindstone, &c., pumping water for stock, railroad or other purposes, irrigation in a dry season, cutting stalks, hay or straw for fodder—in fact, useful in numberless ways. Some, more sanguine, believe it may be applied to heavier work, but time will tell. O. P.

Notes about Potatoes and Potato Culture.

Messrs. Editors—I saw an article in the Worcester Palladium, credited to the Country Gentleman of Feb. 14, over the name G. W. Durant. Now your correspondent seems to invite dicussion on the potato culture. He may possibly raise good crops by the method he intends to pursue with his five acre lot; but I advise him not to plow deeper than seven inches and to do this the last week in June, (planting as soon as possible after plowing) harrow once lightly, lengthwise of the furrows; then mark it out three feet apart each way, and plant two pieces the size of a butternut in a hill,—the said pieces being cut from the largest sized potatoes—manure to his own liking, though the special manures I do not consider so good as a compost made of equal parts of barn-yard manure and mud or loam, which should by all means be put in the hill—then cover his proposed depth; no matter whether the hill is broad or narrow. When the potatoes are four inches high, plow with a common horse plow, turning the furrow from the row; then dress with the hand hoe, covering what weeds are in the hill and between. When the vines are nearly large enough to lop down, run the same plow, turning the furrow to the hill, and finish dressing with the hoe, making a good sized hill in the form of a dish around the vines to hold the water in time of showers, and so let them remain till harvest.

In pursuing this plan, there will be a saving of at least twenty dollars, in the item of labor. The manure I think can be afforded for about the same that the special manures would cost, and the crop when grown I think will be double, besides the land will be in a better condition for the after crops. When the potatoes are grown, we in the east, consider it best to leave them in the ground until the cool weather commences, then bin them in the cellar, upon the bare ground—a cellar that is not pointed from the bottom two-thirds the way up is the best, as the potatoes are not so liable to freeze—the root cellar to have the light excluded. Robert Mansfield. *West Needham, Mass.*

To Destroy Bark Lice.

Messrs. Editors—In your last week's paper, I noticed an inquiry for information to destroy bark lice on apple trees, &c.

Take strong lye, and put in it as much salt as will dissolve, and wash the bark of the trees with it by means of a brush or swab. It will kill the lice, and they will soon rub off. The best time to apply it is in the spring before the buds start, as it will kill the young leaves. It will answer any time, if kept from the leaves. Chas. Lombard *Corning, N. Y.*

Delaware County Dairies.

Messrs. Editors—The remarks of your correspondents from St. Lawrence and Lewis counties, in the Country Gentleman of Feb. 14, respecting their dairies, induce me to say a few words about my own dairy, and one or two others in this part of Delaware county.

I have kept through the past season, eleven cows—one three-year old heifer, and two two-year old heifers—fourteen in all; and have made and sold from them twenty-nine hundred and ten pounds of butter—besides what was used in the family.

In the season of 1854, which was severely affected by the drouth, I made and sold a little over 200 lbs. to each cow. In 1853 I sold a considerable over 200 lbs. to the cow.

One of my neighbors has averaged over 200 lbs. of butter from each cow, in his dairy for three years back, and one year went as high as 220 lbs. to each cow.

My brother this year made 200 lbs. per cow, and I could mention several other dairies in this town, that have done nearly as well.

The cows in this section are mostly the native breed, and although at the risk of being considered behind the times, I must say, that for producing butter, they cannot be beat by any of the imported breeds, when selected with care, and well fed.

I think I could select a dozen native cows from three dairies I know in this town, from which I could make 300 lbs. of butter a piece in any ordinary good season. S. L. Wattles. *Sidney Centre, March 1, 1856.*

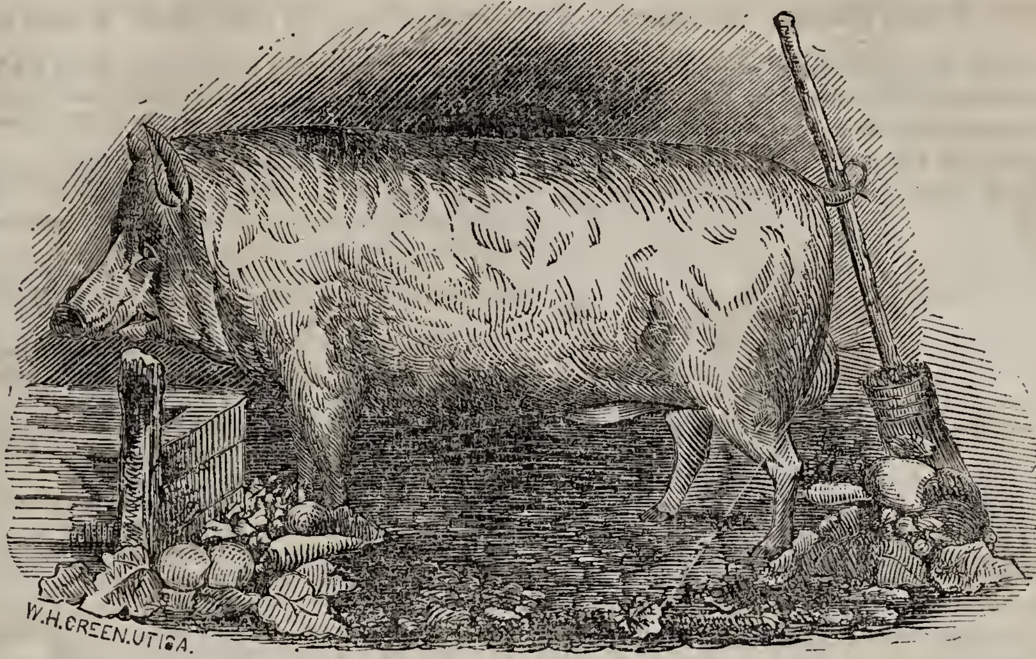
Experience in Growing Corn-Fodder.

I procured in Boston last May, a quantity of the White Dent Corn, and sowed in drills for the purpose of securing sufficient fodder for my stock for the coming winter. My anticipations were fully realized in the crop. I cut it, let it remain on the ground two or three days, then bound it up and set it up in stocks of about 8 bundles, and let it remain till snow fell. It being in complete order I supposed it safe now to put up in stacks, which I did around a pole set in the centre. In January I was surprised to discover my corn-fodder all on fire to appearance; smoke or steam arose several feet above the stack, and the stacks began to settle. On examination I found my excellent corn-fodder was ruined entirely. I put about four tons into the barn, which proved to be the best fodder I ever fed to cattle. I consider it the cheapest fodder I can raise.

Two Crops a Year.—I sowed a small piece of ground the first day of June with the white dent corn in drills, and harvested the first day of August, fodder measuring eight feet in height, which is rather too large for profit. I plowed the same piece, and sowed it the second day of August, and had another good crop three feet high, and very nice to feed green. A. Willard, Jr. *Hartford, Wash. Co., N. Y.*

How to Make Butter Come.

I sympathize with an "Old Subscriber," in his inquiry—Why will not butter come? I have gone through the same experience, some years past; but for three or four years past, we have adopted the plan of heating the milk in a tin pan, when first brought in, so hot that a bright scum is all over the surface; then set it in pans, as full as you please to have them, for the cream to rise. Skim as you choose, either before or after souring, and churn in the usual way—(we have Kendal's churn) We hope to set the milk where it will not freeze, but this winter it has in a few instances, frozen some. We have, however, no difficulty in having the butter come, and a rich looking sweet butter, that does not resemble the old fashioned winter butter that is exhibited in our shops. A Saratoga Co. Farmer.


W.H.GREEN.UTICA.

Suffolk Boar Express 2nd,

The property of, and bred by, Thomas Gould, Aurora, Cayuga Co., N. Y. Parents bred by Lewis G. Morris, Esq., of Fordham, N. Y. Grand-parents imported by Mr. Morris.

Farm Rotation, &c.

Messrs. Editors—Allow me to ask, through the columns of your valuable journal, a little advice as to the proper course of managing a farm containing 126 acres, situated as follows: 26 acres now in to wheat—10 acres of rather low land, now in meadow—23 acres wood—10 acres upon which was a crop of corn and potatoes—balance all seeded to clover, one and two years ago. To be managed by one who has no experience in farming, except what has been got out of the Country Gentleman and Rural New-Yorker for two years past, and not disposed to work. I also propose to adopt the system of keeping true and accurate accounts with every field, that I may be able myself, at some future time, to enlighten some poor fellow in my situation. Produce. *Le Ray, N. Y.*

We take it for granted that our correspondent wishes mainly *a system of rotation* for his crops. This must vary with soil, market, and other circumstances; but the following would probably answer a good purpose in the instance before us. A good rotation, as we have stated on a former occasion, is, 1st year, Wheat after clover; 2d, Corn and roots, with all the manure; 3d, Barley or peas; 4th, Wheat seeded with clover; 5th, Clover pastured for a greater or less number of years, according to circumstances. Or, the first crop of wheat may be omitted, making, corn after clover; barley or peas; wheat; and clover.

Our correspondent has 23 acres of wood, for the management of which he is referred to the full article on the subject published last year. The ten acres of low meadow, will need occasional plowing and re-seeding with timothy, and may be cropped after plowing with oats, corn-fodder, and if dry enough, with corn. The ten acres last year in corn and potatoes, may be sowed this spring with barley, peas, and beans, to be followed by wheat and clover. The 26 acres now in wheat, must be heavily seeded with clover immediately. Of the 57 remaining acres in clover, one half or one third may be put into corn or wheat, according to the above proposed course, and the remainder afterwards, as the rotation may require, and circumstances dictate. Some discretion must be used in modifying or applying any general directions like these, by every good farmer.

One word more, about "not working" The farmer who always carries his hands in his pocket, unless he has a skillful and energetic superintendent, (the pay of whom would not be warranted from a moderate sized farm like the above,) cannot expect to realize so much profit, as one who at least *knows how* to work. The head farmer must be a good plowman, or he cannot *show* his workman how to turn his furrows, how to adjust or gauge his implement when it works wrong, &c. If he is not personally familiar with every operation, and cannot occasionally take hold with his own hands, his workmen will be likely to take many advantages of him, and impose upon him. Kid-glove farming may be interesting, but it cannot as a general thing prove profitable.

Beans—Answer to S. H. W.

I have been a grower of beans more or less for the last twelve years—have tried all sorts, but have never had any to equal the enclosed for profit. I got them by accident, and do not know the name of them; perhaps you or some of your friends do. They are very early, so much so that I have been first in Buffalo market with them as a string bean; they yield well; the pods are all ripe together, a very good property for a handsome sample, and are off the ground in good season for wheat. Had only two acres of them last year, managed as follows:

Ashed the land with leached ashes at the rate of six loads per acre; put on two bushels of seed to the acre, with Emery's drill barrow, the drills two and a half feet apart; worked the cultivator between the rows, and followed by the hoe. Pulled and thrashed them, and had eighty-one bushels of good beans on the two acres, and left perhaps four bushels in the straw as I was not particular, it being saved for sheep. They left the land in a fine mellow condition; sowed it to wheat without plowing, cultivating it in. It looked well last fall, better than some by the side of it that was fallowed and plowed through the summer. It has been covered ever since with from 3 to 4 foot of snow and no appearance of its going. H. H. B. [The beans enclosed, were the "White Cranberry."]

Allen's Patent Mowing Machine.

This machine was patented in 1852, but was not thoroughly perfected till last season; at which time it gave such general satisfaction, as to take its place among those of the first rank, and is preferred to all others by those who have used it with the latest improvements.

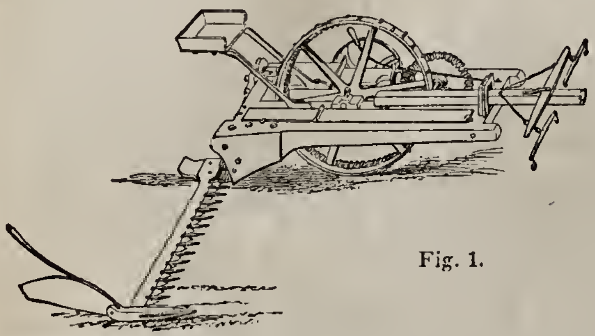
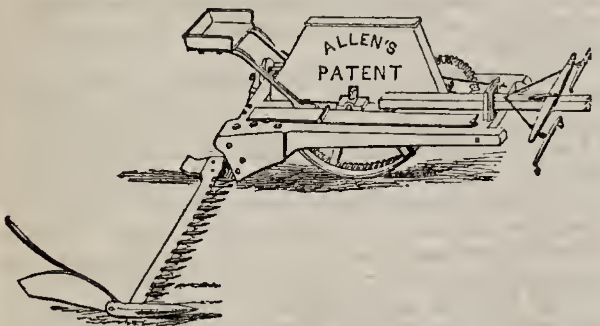


Fig. 1.

Fig. 1, represents the Mower without the cover, so as to show the whole of its gearing. Fig. 2, represents the Mower with the cover on ready for operation. The object of the cover is, to preserve the driver from injury by the gearing in case of being thrown from his seat, of which there is scarcely a possibility, he sits so firm in it, and is so near the ground.



The superiority of Allen's Mowing Machine consists,

1st. In its ease of draught. It will cut and spread in the most perfect manner one acre per hour[*] on an average, of the heaviest kinds of grass, with a light pair of horses, not over 14 to 15 hands high.

In order to show its lightness of draft, I have repeatedly hitched one horse about 16 hands high to my mower. The grass was from one to one and a half tons per acre, and the swath cut was 4 feet 8 inches wide. This horse did not make harder work of it alone, than he and his mate did when hitched to a machine of another patent, in the same kind of grass, and cutting no wider swath. I however think it too fatiguing for one horse alone to work any great length of time with my machine, cutting so wide a swath.

2d. My mower can be worked with *oxen* as well as horses. It cuts the grass as perfectly when moved at the rate of only two miles per hour, as when going three or four miles per hour. This is a great consideration with northern farmers where oxen are so much used, also with those who work slow horses and mules, or during a very hot day, when it is so distressing to the team to move at a quick pace.

3d. Since the latest improvements have been put on this machine, the knives never clog or choke, even in the wettest, thickest, finest grass. This is a great consideration, particularly in so wet a season as the last was, and with so heavy an under growth of short grass to cut.

4th. It cuts equally as well on salt or fresh water meadow, as on dry, solid ground, and the tallest, heaviest and worst lodged grass as the finest and shortest.

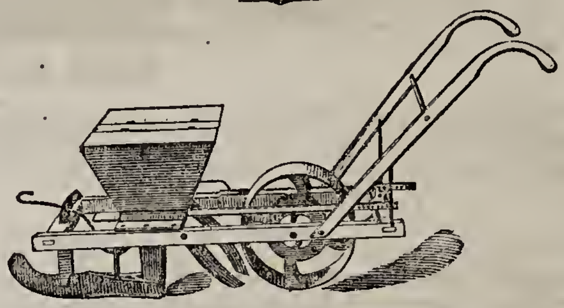
5th. It does excellent work on side hills, up or down, or sideways; and nothing else ever tried with this machine equals it among stones, rocks, stumps, hassocks, ant-hills, or on rough, uneven ground.

6th. The gearing and whole construction of the machine is quite simple, and it moves with little noise and great ease.

7th The mower is light, compact and strong; lasts a long time with proper care, and is not liable to get out of order.

8th. It is easily transported and can be driven, with the finger board off, along any ordinary road with the same ease as a light wagon.

A compact Combined Mower and Reaper is made upon the same principles as the Mower alone. It is of light draught, strong and durable. R. L. Allen. 189 *and* 191 *Water St., New-York.*



Billing's Improved Corn Planter and Fertilizer.

For a notice of the operation of this machine, see Co. Gent. for March 27, p. 202. See also advertisement of the manufacturers in this paper. One of the machines is on exhibition at this office.

Shade Trees.

Messrs Eds.—I wish to plant a few shade trees in a situation somewhat exposed to westerly winds, in a valley some 800 to 1000 feet above the level of the sea, and in latitude about the same as Albany; would the Tulip tree, (Liriodendron tulipifera) succeed in such a location? Wm. F. Basset. *Ashfield, Mass.*

The tulip tree is perfectly hardy, and if trees already inured to open ground are planted as proposed, they will doubtless succeed. Taken from dense forests, where the shelter and shade has almost made them like green-house plants, their success would be quite improbable. The tulip-tree is a very difficult tree to transplant, and unless small trees are taken, or those which have had their roots shortened by previous removal, loss may be the result.

Blight in the Privet.

Be good enough to inform me through the Cultivator, the cause of the blight in the Privet or Prim, and whether sawing off the branches will save the roots?

Having a hedge of Prim, which was killed by the blight the last season, I wish to save it through the roots if possible—if not, to save the use of the ground on which the same stands this spring. Any information on this subject will much oblige, Silas R. Gridley. *Bristol, Ct.*

[Having never met with any disease of the privet similar to that mentioned above, we must apply for information to those who have had the necessary experience.]

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[*] Mr. Austin Roe of Patchogue, Long Island, N. Y., informs me that he cut *nineteen* tons of hay last season from *eight* acres with one of my machines in *four hours*, which is at the rate of *one* acre in *thirty minutes*. Others inform me that they have repeatedly cut an acre of grass with it in *thirty* to *forty-five* minutes.

Corn for Fodder.

There being at present quite an interest evinced among the farmers throughout the country respecting the merits of Indian corn as a fodder crop, I propose making a brief statement of an experiment made by myself in its culture, not because I conceive that I have achieved a thing worthy of note, but rather, (which is less common,) to point out errors of culture, and at the same time to yield an approval to the system, as being a good and profitable one.

The soil, some five acres of old meadow sod, was turned over during the first day of June, in a fair but not superior manner. The land descends toward the east, soil varying from a dry clayey loam to a low and rather wet muck—subsoil a clay hard-pan, and the whole quite thickly interspersed with rubble stone. Upon this field, passably well prepared, I sowed broadcast at the rate of about 3 bushels per acre, of yellow 8 and 10 rowed corn, and covered with the harrow. On account of a grievous scarcity of labor, and the pressure of other matters, the harrowing was not as thoroughly performed as it should have been, and the next rain, (which by the way was a tempest,) left much of the seed uncovered.

Immediately succeeding this storm, came a lengthy drouth, and of its effects I purpose to tell. Upon the dry and loamy portion of the field, much of the seed failed to vegetate, and as a consequence the stand was thin, and some weeds grew among the corn. Also in some low places, where the water collected and saturated the soil for too great a length of time, the same result obtained, save that the stalks were somewhat shorter than upon the loam. As a largo portion of the field was springy and the crops usually much injured by surplus water, I had opened a large ditch lengthwise through the center of the low ground, which ditch however, proved far from sufficient to effect a thorough drainage of the field. Upon the muck drained by the ditch, the growth of corn was almost gigantic, though very thick upon the ground; indeed it was a perfect wilderness through which it was almost impossible to force a way. In this, as in other crops, I find drouth powerless for harm, upon a well-drained soil; and in this instance, the increased product would nearly have repaid the whole cost of thoroughly draining the whole field, had it been possible to procure the requisite labor; but in this vicinity that is the scarcest article in market.

Of this fodder, a small portion was fed green, during the August and September drouth. It was well relished by my stock, (horses, oxen and milch cows,) and supplied in a most satisfactory manner the deficiencies of a dry and sun-scorched pasture, and kept up without diminution the flow of milk.

I allowed the bulk of the crop to stand until the lower blades began to wither and show 'the sere and yellow leaf,' when I proceeded to the harvest, and *then* came the tug of war. My men being unacquainted with the peculiarities of a crop of fodder corn, were sanguine of success with the cradle, but after wrecking one and badly injuring another, they sagely concluded that a cradle was *not* the tool with which to harvest an 8 feet growth of fodder corn, though the stalks were ever so slim; and where shorter, their weight and the tangling of the blades rendered the attempt hopeless. I then set them at work with English grass hooks, which performed the work satisfactorily, albeit somewhat tediously. The stalks were bound in rather small bundles and set up in stooks; and as they require to stand quite a length of time, I here remark that the operation can not be too thoroughly performed. The stooks should be rather large, and well bound with *straw*. *Stalks* will not answer, as they are apt to break, and let the whole fabric fall to the ground.

A portion of my stooks were originally put up small and after being partially cured were united, 2 or 3 being made into one. This is the best method of management, as the time required is but a trifle, and the ends of thorough curing and security from injury, are both attained thereby. After the stooks have been united, they can remain until a convenient time for storing, which can be done in various manners, and as I am relating my experience, I shall not spare my failures. I drew a portion of my fodder to the yard and stacked it, placing 4 and 5 large loads in a stack, thus making (as I soon learned in a most convincing manner,) my stacks too large. The stacks soon generated heat and began to smoke at a fearful rate, whereupon I speedily took them down and set them out to cool, and then put them up in small stacks with a net work of rails under the bottom, to keep them from the ground, and admit the air. After this they gave me no more trouble. Another portion of the fodder I drew to my barn, and stored about in different places upon the scaffoldings. This last, (when the farmer has plenty of scaffolding,) I think to be the best and safest method of storing.

I have since learned that the correct mode of stacking corn-fodder, is to obtain a rather bushy sapling, cut off the limbs, leaving their stubs a few inches in length, and plant the pole thus prepared firmly in the ground; next throw some bits of rails, &c., about its base, to keep the fodder from the ground, and you are ready to commence the stack. Build the same carefully and in a circular form, with the butts of the stalks out, and allowing the tops to pass a little by the pole in the center; twist these tops occasionally about the pole, so that when the stack settles the center will retain its position, and thus leaving the whole affair in condition to shed off the storm. A stack thus built will preserve the fodder in the brightest and best possible condition, and as it will be small, it can be fed out in the winter without receiving material injury from the storms while open.

I am unable to state the precise amount of dry fodder yielded per acre, but should think it to be about 5 tons. Suffice it to say that the return was satisfactory, furnishing as it did, by far the larger portion of food for the sustenance of a considerable stock through the winter, and furnishing it too at a cost far below that of an equal amount of hay.

I can safely premise that of all the readers of the Country Gentleman who wish to secure themselves against the effects of drouth, and the consequent failures of the hay crop, not one will have cause to regret the provision of a liberal stock of corn-fodder, to guard against unforeseen casualities. J. G. K.

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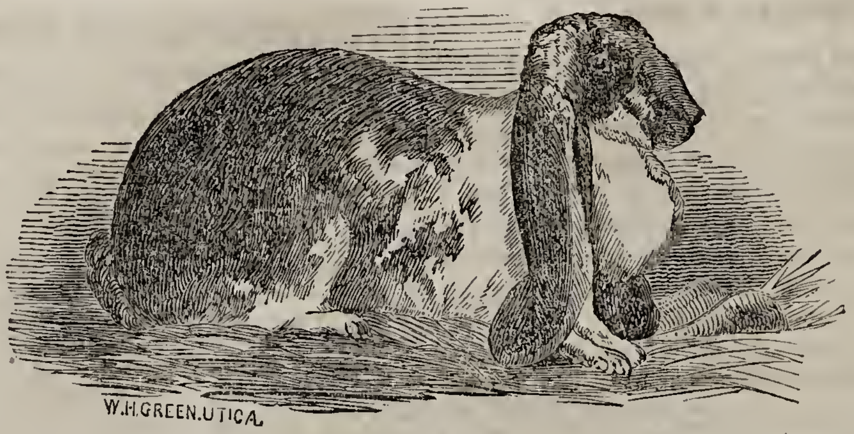
Value of Liquid Manure on Meadows.

Messrs. Editors—I wish to say a word about top-dressing meadows with liquid manure. I built a vat which holds about twenty-five hogsheads, so placed that I could drain into it all the liquid from the stables, yard and privy. All dead carcases may also be put in, if not too large, by putting some lime in with them which will prevent their being offensive. The liquid is distributed in the same way as streets are sprinkled with water in the cities. A chain pump is the best and cheapest way of getting the liquid from the cistern.

I went over a lot, that three years ago was not worth cutting, three times, and now it produces about three tons of hay per acre. I think every farmer ought to have such a vat, as he thus saves a great amount of valuable manure which now in most cases is wasted. John Marsh. *Beech Woods, N. Y.*

◆

Cattle Sales.—Three Devon cows and a pair of calves, from the herd of Mr. Thomas Gould of Aurora, Cayuga Co., passed through this city last week, on their way, two of them, to Mr. A. M. Tredwell, Madison, N. J., and three of them to Mr. P. T. Graves of Lowndes County, Alabama.


W.H.GREEN.UTICA.

Madagascar or Lop-Eared Rabbit "Mario,"

The property of, and bred by Thomas Gould, Aurora, Cayuga Co., N. Y. Length of ear 7½ inches—width of do. 4½ inches—weight 11 pounds—age 5½ months.

Experiment on the Elementary Principles of Manure as applied to the Growth of Wheat.

Such is the title of the last contribution to agricultural knowledge from the pen of the late Philip Pusey, editor of the Journal of the Royal Ag. Society, England. In addition to the inherent value of the facts reported, and of the inferences deducible therefrom, somewhat of a melancholy interest will be felt by some in perusing this report, on account of its being the last communication to his agricultural brethren by one who held such a high place in the esteem of the public.

In this brief article we shall submit to our readers all the more important items of the original report, in a much condensed form.

The experiment was made on a field of eight acres, set apart from common cultivation for the purpose of accurate experiment. The soil was of no great depth, resting upon marble rock, and was exhausted by five previous crops of grain grown in succession to such an extent as to be an accurate test of artificial manures. Mr. Pusey thought that the most interesting use that could be made of it might consist in the separate application of those elements which are supposed to constitute conjointly the efficacy of farm-yard manure, and separately to act as fertilizers of the soil.

These elements, according to the received theory of agricultural science, may be comprised under four heads: 1. Nitrogenous substances; 2. Phosphorous; 3. Alkalis and principally Potash; and 4, That which constitutes the bulk of farm-yard manure, the strawy matter, or, in chemical language, carbon.

The nitrogenous matter employed was nitrate of soda, which has been proved to be tantamount to ammonia for agricultural purposes.

The experiment was made by drilling separately superphosphate and peat-charcoal with wheat in the autumn, and top-dressing a portion of each lot in the spring with the nitrate of soda. The fourth element, potash, was also applied in the spring.

The question of the efficacy of superphosphate on wheat, seemed to be especially interesting because of its vigorous efficacy when applied singly to the growth of turnips.

The result of the trial is given in the following table:

Quantity of Manure per Acre.	Bushels of Wheat per Acre.	Ditto with a top-dressing of 170 lbs. of Nitrate per Acre.
4 cwt. of Superphosphate,	7	19⅓
6 cwt. of Peat-charcoal,	8¾	18
No application,	7⅓	19 3-10

From the result of this experiment Mr. P. thought it evident that the superphosphate, though all important for roots, had done nothing for the wheat, even on such very poor and exhausted soil, on which the efficacy of concentrated fertilizers is most easily discernible. The charcoal would appear in the first column to have done something, but as that result was not confirmed by the combined trial, the difference was very probably accidental.

The fourth element, potash, was tried by top-dressing an acre of wheat with 1 cwt. of pearl-ash; but it was evidently inoperative on the crop. So much so that separate thrashing was deemed unnecessary.

As far, then, as we can rely on this experiment, carefully made with soil duly prepared by previous exhaustion, it testifies, as Mr. P. remarks, that the only element of farm-yard manure required by wheat is nitrogen, as contained either in nitric acid or in ammonia. If this be true in an exhausted soil, where the plant can only find its other elements in the soil as it gradually crumbles down, or in the atmosphere, it must be still more true in practical farming, where they will be supplied ordinarily by manures applied to the other crops of each course.

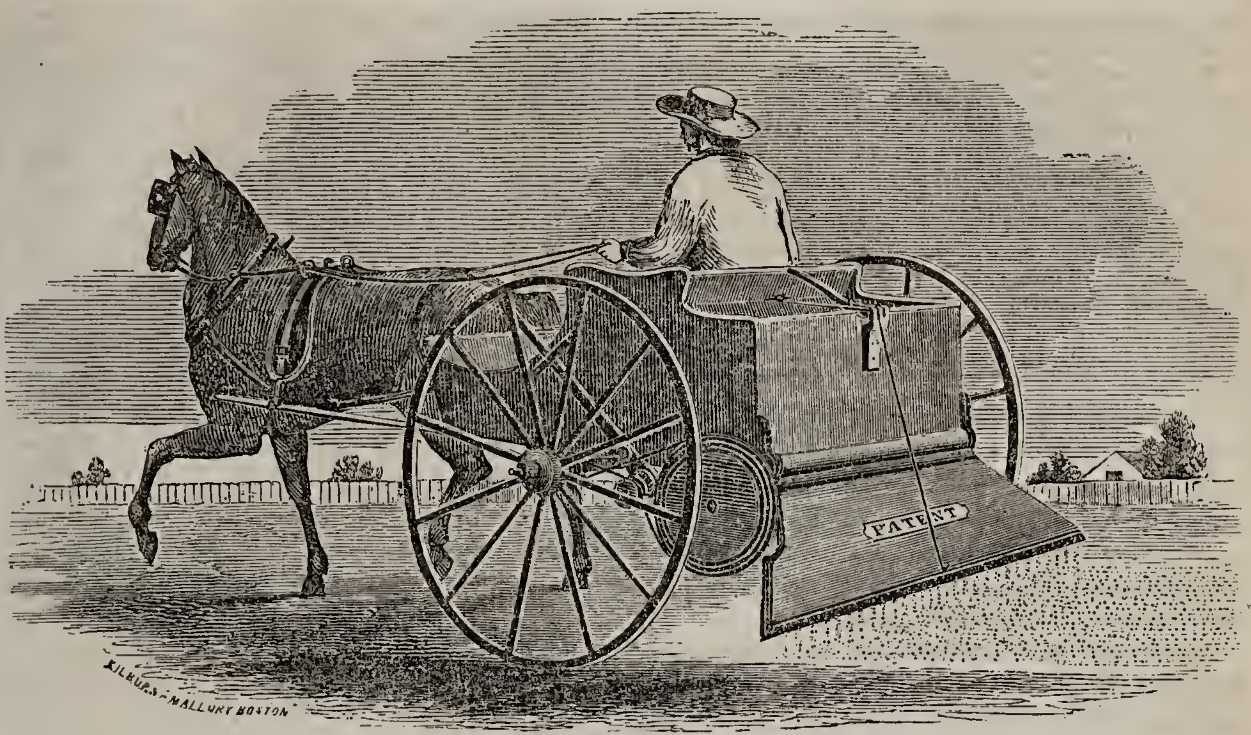
As to one element of farm-yard manure—the woody or carbonaceous matter—the experiment is not conclusive, because, as remarked by Mr. P., though carbon applied *as charcoal* did not operate on wheat, the woody or strawy carbonaceous matter contained in ordinary manure, being more easily decomposed, might be operative.

In this experiment the produce is very low. This was owing to the gradual impoverishment of a naturally poor soil by a succession of grain crops, aided by the cutting winds of a harsh spring, which had almost blown the plants out of the soil, and rendered them almost invisible in May. In a more sheltered part of the same field the result was much better.

The *negative* results of this experiment go so far to prove the inefficiency of certain chemical elements of manure on the growth of the wheat-plant. Its *positive* result goes to prove the benefit of nitrogenous applications, and of top-dressing as one mode of applying such substances. Top-dressing is, probably, deserving of more frequent trials in ordinary practice.

Cure for Bloody Murrain.

Take fresh droppings of a healthy cow—mix with water, blood warm, as thick as will conveniently pour, and give one quart at a time, three doses, two hours between each. Eight or ten hours after, give one pint soft soap. I have never known it to fail, and have tried it a number of times. Jesse Moss. *Jubilee, Ill.*



Stevens' Broadcast Seed Sower.

The above cut represents Stevens' Broadcast Seed Sower, *Patented May* 22, 1855, of which the following is a detailed description:

As noticed in the cut, it is a very light, comfortable carriage, mounted upon two wheels; tasty in form, built entirely of wood. The forward part of the carriage is used for carrying grain or fertilizers in bags. The rear part is the hopper or seed box, for the seed or fertilizer in bulk. This hopper is so constructed as to deliver its contents to an opening in the rear part of the carriage, being the bottom of the hopper or seed box. This opening extends the whole width of the seed box Directly in this opening lie a couple of rolls or "regulators," 2½ inches in diameter. These rolls are usually made of rubber, but any elastic substance will answer, the object being to protect the seed from crushing while passing through. On one end of the lower roll is fixed a cone, with scores for change of belt, for seeding light, medium or heavy. Around the cone runs a belt: this belt passes over a similar cone, being part of the hub of one of the wheels. In the rear of the seed-box, is a slide for cutting off or letting on the seeds, operated by the lever behind the man in the seat.

The seed-board or distributor, seen sprinkling the seed, is hung upon hinges, the lower edge supported by a cord, fastened just behind the driver. When passing over stumps, stones, or inequalities of soil, the operator raises and lowers the board by merely taking hold of the *bite* of the cord. This seed-board is made very light, and is filled with partitions, radiating from the rolls; these partitions extending down within two or three inches of the lower edge. The lever seen at the side, is for tightening the belt, held by a *ratchet*, wherever the foot places it. The upper roll is raised or lowered by a simple *thumb-screw* at each end.

The farmer now directs his boy to load the carriage at the granary, filling the hopper in bulk, and taking in the front as much grain or fertilizer in bags, as will answer for the half or whole days work. He now places the belt upon the score of the cone which represents the quantity he wants upon the acre, and rides to the field. When ready to sow he lifts the lever behind him, letting the contents of the hopper go down to the opening between the rolls. The moment the rolls start, the seed or fertilizer commences passing in mathematical quantity between them into the seed-board, and continuing to do so until the hopper is exhausted. Between the partitions of the seed-board the seed courses down until it reaches the ends of the partitions, where it again mingles, falling over the edge upon the soil in form of a shower.

To change the Broadcast for a Drill Machine, remove the seed-board—done in a moment—and attach the drill-board, which in outward appearance is similar to the seed-board. The drill-board has within it, a quantity of *tubes*, pivoted at the head near the rolls, and movable at the lower ends, fastens with a common thumb screw. The seed comes from the hopper as in broadcast, and is regulated as to quantity per acre in the same manner. It comes down the *tubes* and falls into the furrow just behind the point of the drill or share. A coverer and roller follow, completing the operation. The lower ends of these tubes being movable, admit of the rows being drilled as near or as far asunder as you please.

Machines are made for *hand* or *horse* power. For hand power, it being 5 or 6 feet wide, the machine will weigh about 120 lbs. only, and the farmer walking at the rate of 2½ or 3 miles per hour will cover 15 to 20 acres daily—for horse power, sowing 10 to 12 feet wide, weighing about 300 lbs. only; the horse moving at a speed of 2½ or 3 miles per hour, will sow 35 or 45 acres daily. A larger machine, sowing 25 or 30 feet wide, will cover 60 to 100 acres daily.

To finish out narrow strips of land, of less width than the capacity of the machine, you but throw the seed or fertilizer into the middle or one end of the hopper, confining it by one or more little slides not seen in the cut, and finish out your piece without waste of seed where you have already sown, or upon the grass bordering the field.

It will be noticed that whether the machine moves *fast* or *slow*, the horse trotting or walking, the same quantity of seed is put upon the rod or acre, the whole being governed by the *speed* of the rolls, and the speed of the rolls being governed by the speed of the machine.

The whole operation of this simple machine, is summed up in a very few words. The contents of the hopper are simply *rolled* out between two elastic rolls, in the plainest possible manner, and distributed accurately upon the soil, by the means of a double board with partitions, gradually widening the current of seed, until it *rains* off the edge of the sideboard, *double* the width of the hopper.

We have examined the operation of this machine in sowing different seeds, varying in size from beans and corn to timothy, upon a floor; and, so far as this will afford a criterion of its merits in the field, can discover no reason why it should fail to realize the highest hopes of the inventor. As a Drill we cannot speak of it, but see nothing to prevent the equal efficiency of the same principle in both. Any information desired in regard to it may be obtained by addressing the proprietor, William S. Sampson. *Boston, Mass.*

ENTOMOLOGY.

No. IX.—The American Vaporer Moth.

S. Moore, Esq., of Kensington, Ct., says he finds (Feb. 26th,) on the small limbs of his apple trees, the eggs of an insect, covered by a leaf. The worm appears to have spun a kind of cocoon, laid its eggs, and died. He wishes to know what insect this is, and whether it is advisable to destroy the eggs.

In the last volume of the Country Gentleman, page 202, W. H. W., of Albany, asked for information respecting a kind of caterpillar with yellow tufts upon its back, which he found quite common upon his plum trees in July.

I suppose both these inquiries relate to the same insect, an account of which I proceed to lay before the reader.

We commonly apply the term "caterpillar" to *a worm which is clothed with hairs*, and we are accustomed to associate this term with something which is ugly and repulsive in its appearance. But many caterpillars are far from meriting this prejudice, being in reality objects of much beauty. This is eminently the case with one which may every year be seen in the month of July, upon rose bushes and apple trees. We cultivate the rose for ornament. And nature, as if to further our design, places upon the bushes this neat prim little caterpillar, which is more delicate and elegant than the finest rose that ever grew. I well remember the first time I noticed one of these caterpillars. It was in the hay-field, in my boyhood. One of the laborers, who had little taste for any of the beauties of nature—a man of that class of whom the poet sings,

> "The primrose, growing by the river's brim,
> Is but 'a yellow primrose'—nothing more to him"—

in stooping for a handful of grass to wipe off his scythe, had his attention arrested by one of these caterpillars. Taking up the leaf on which it was standing, he was for several moments absorbed in contemplating its bright colors and the artistic arrangement of its elegant tufts and plumes. Then laying it down, he said to himself, "That is the prettiest thing I ever saw." Let us not murmur, if the leaves of our rose-bushes are somewhat gnawed and eroded, when they hereby produce for our admiration objects far more beautiful than we looked for them to yield.

These caterpillars are over an inch long, slender, 16-footed, of a cream yellow color with a black stripe upon the back and a broader brown one along each side. Their heads are bright coral red, or like sealing-wax, and there are two little knobs or bosses of the same rich color, protruding from the hind part of the back, whilst upon its fore part is a row of four brush-like tufts, formed of short yellow bristles, the rest of the body being thinly covered with long fine hairs of a paler yellow or nankin color; and upon each side of the neck is a pencil formed of long black hairs, each hair having a little knob at its end, and on the hind part of the back is a third pencil of the same kind.

These caterpillars do not associate together in companies, nor make any web for their protection, but live solitary, openly exposing themselves upon the leaves and in the glare of the shining sun, as though they were aware that no one would have a heart to injure anything so pretty as they are. They eat the leaves of many different trees, but appear to be most fond of those of the apple, the plum, the rose, and other perennials pertaining to the Natural Order Rosaceæ. Most of them attain their growth and form their cocoons the latter part of July. Their cocoons are generally attached to the twigs or limbs of trees. They are constructed of whitish silk, loosely woven, and interspersed with the yellow and black hairs of the caterpillar's body. Commonly one or two leaves are drawn together around the upper part of the cocoon, in such a manner as to form a roof, sheltering it from the rain. I once met with one of these cocoons, occupying the surface of a butternut leaf; and as if the worm had been aware of the brittle attachment of these leaves to the main stem and was conscious that the weight of its body might cause the leaf to break off and fall should a gale of wind arise, it had spun several threads from the end of the cocoon to the main stem, thus tying it securely thereto.

The pupa or chrysalis, which is inclosed in the cocoon, is shaped like an egg, five-eighths of an inch long and half as broad. It is dark brown with pale clouds, and its head, back and sides are thinly clothed with rather long fine white hairs, and upon the top of each of the three interior wings is a transverse spot of a clay yellow color, formed of short crinkled scales. In each instance when I have bred this insect, the moth made its exit upon the thirteenth day after spinning its cocoon. But some of the caterpillars do not attain their full growth until much later in the season, when the pupa lies in its cocoon through the winter and the moth comes out the following spring.

From the gay appearance of the caterpillar, one would expect it to produce a very pretty moth or miller, and will be disappointed to see it yield a dull sooty brown thing, little variegated, the outer part of its fore wings beyond the middle being ash-gray crossed by a blackish oblique streak, with a rhombic blackish spot immediately behind this streak, and near the inner angle of these wings is a round white spot. These are all the marks that can ordinarily be discerned upon the wings of these insects, when bred as far north as this, the wings when spread measuring an inch and a quarter across. Farther south, however, they become paler colored, and show additional spots and marks. Specimens from the vicinity of the city of New-York, have the oblique streak above mentioned prolonged in a wavy manner entirely across the wing nearly parallel with its hind margin, with a broad gray band forward of it, occupying all the middle portion of the wing, this band being much broader towards the outer edge, and showing a black crescent-like streak in its middle, with a black dot outside of it. The rhombic spot, moreover, is cut in two by a pale line. Still further south, the insect is much lighter colored and more complicately marked, as appears from the figure given in Abbot and Smith's splendid work on the Lepidopterous Insects of Georgia, in which this species was first named *Phalæna* (*Bombyx*) *leucostigma*, or the Palo vaporer moth. The epithet "pale," however, is inapplicable to the dark colored northern varieties which I have described above. In England, insects similar to this are named "vaporer moths." This term, implying something which has a volatile, peevish, hysterical disposition, has probably been given to these insects in consequence of their singular mode of flying, which is with short jerks, in a flirting manner. They pertain to the genus *Orgyia*, in the family *Arctiidæ*. *Orgyia leucostigma*, variety *borealis*, thus becomes the correct scientific designation of these insects as they occur in the neighborhood of Albany. They are here so unlike the insect figured by Abbot, that I should deem them a distinct species, were it not that the caterpillars, which are so peculiarly marked, appear to be identical; and specimens of the moths from the southern border of our state are intermediate between our northern and the Georgia insects, thus indicating that there is a gradual transition from the one to the other.

It is the male insects of which we have as yet been speaking. The females are very different in their appearance, being destitute of wings, and having in place of them small scales only the tenth of an inch in length. This sex therefore appears more like a worm than like a perfect insect. It is about half an inch long, of an oval form, densely covered with ash-gray hairs. These females merely crawl out of their cocoons, and there remain. Their mates find them immediately, and they without delay begin to deposit their eggs, placing them upon the surface of the cocoon. The eggs are about the size of mustard seeds. They are white and round, with a depression on one side, and are enveloped in a large quantity of frothy, milk-white, viscid matter, causing them to adhere securely to the cocoon and to each other. They are extruded in a continuous string, which is folded and matted together, forming an irregular mass. I once pierced one of these insects with a pin when she was in the act of depositing her eggs; and so tenaciously did she adhere to the string of eggs, that for a time it was uncertain whether the body would not tear asunder before it would separate from the string. This act is completed in a day or two after she comes from the cocoon, from one to two hundred eggs being deposited, and she then expires. In all this, the designs of the Author of nature are plain to our comprehension. Having no wings by which to escape when menaced with danger, were these worm-like females to crawl about upon the limbs of the trees, their pale gray bodies would be readily seen and they would be devoured by birds. By remaining stationary as they do, upon their light colored cocoons, they are much less liable to be noticed. But still the peering eyes of a bird may discover them even in this place. They therefore hasten to fulfil the purpose of their existence, without delay, that it may be completed before any casuality occurs to them.

The frothy matter in which the eggs are enveloped becomes dry and hard, and impervious to wet, thus protecting them through all the storms and vicissitudes of autumn, winter and spring; nor will a bird be disposed to pick off and devour these eggs, with this frothy matter and the hairs of the cocoon adhering to them. Thus they are shielded from harm, until the return of warm weather brings forth a crop of leaves for the subsistence of the worms; whereupon the latter hatch from the eggs and grow up till they become the gay caterpillars which we first noticed.

These caterpillars, like most other injurious insects, have their mortal enemies among their own class of beings—enemies which appear to have been created for the sole purpose of restraining these insects from becoming unduly multiplied, and quelling them down to their appropriate bounds whenever they are excessively numerous. The larva of a minute bee-like insect, pertaining to the family CHALCIDIDÆ in the order HYMENOPTERA, lives within the bodies of these caterpillars. The parent insect, alighting upon the caterpillar, stings it, dropping an egg into the puncture, from which hatches a minute maggot, which feeds upon the fatty matter of the caterpillar, thus exhausting and eventually killing it. I once met with a couple of these caterpillars which I enclosed in a box with some leaves for them to feed upon. Two days afterwards one of them was found to be dead, and the other being lively and vigorous was removed to another box. Next day what appeared like the heads of little worms, were seen protruding from the body of the dead caterpillar. Upon the following day these worms were found to be seventeen in number. They had all left the carcase of the caterpillar, and just above it had arranged themselves in a circular row upon the side of the box, and were now changed into pupæ, hanging by their tails with their heads downwards and their backs against the side of the box. They were of a milk-white color, 12-100ths of an inch long and half as broad. This was upon the last day of July. Next day they had turned to a pale red color, and were somewhat shrivelled, each having discharged a little cluster of clay-yellow grains which were adhering to the side of the box at the tip of their bodies. They afterwards changed to a black color, and Aug. 6th the winged insects came from them. These were of the same length as the pupæ, and of a brilliant brassy-green color, the abdomen blackish-purple with a large transverse white spot above and a larger one beneath upon the hind margin of the first segment, the legs being yellowish-white and the ends of the feet blackish. Their antennæ were dark brown, six-jointed, the basal joint long and pale yellow, and forming an elbow with the remaining joints, of which the next one was shortest, the third longer than the two next which were equal and of an oval form, the last joint being thicker and longer than the third, and shaped like an egg. The wings were clear and glassy, with numerous minute punctures except upon the basal part, each puncture yielding a short hair, and towards the inner margin these hairs were arranged in a row, the space upon each side of it being vacant. The wings were without veins, except a short branch from the anterior margin towards its tip, which branch was thicker at its end and slightly notched. I name this insect the Vaporer moth parasite, (*Trichogramma? Orgyiæ.*)

Another insect, so much like the preceding in all its details, that it may be regarded as its brother reared at the same table, I met with last September, upon rose leaves, where it was probably searching for these same caterpillars. It is slightly smaller, its thorax not so rough and coarsely shagreened, and its abdomen is of the same brassy-green color as the fore part of the body, and without any pale spot at its base. This may be named the Brother parasite, (*T.? fraterna.*)

By these insects, and others probably, whose history is yet unknown to us, the vaporer moth is restrained from becoming so numerous and destructive as it otherwise would be in our country. In my own vicinity I have never known these insects to be so common as to merit any notice on account of their depredations. I think I have never met with a half dozen of the caterpillars in any one year, until last summer, when they were more plenty than usual. But in districts south and east, where the climate is milder than here, I presume they are much more abundant and are frequently quite a nuisance. How pernicious they are upon fruit trees, is shown in a communication from H. B. Ives, of Salem, Mass., in Hovey's Magazine, vol. i, p. 52. Mr. Ives removed all the eggs of these insects from three of his apple trees, leaving the rest of his trees untouched. He gathered twenty-one clusters of eggs from the three trees. Upon the tenth of May the eggs upon the other trees were hatched and the young worms had commenced their ravages. He "watched them from time to time, until many branches had been spoiled of their leaves, and in the autumn were entirely destitute of fruit; while the three trees which had been stripped of the eggs were flush with foliage, each limb without exception ripening its fruit." Dr. Harris (Treatise, p. 283,) states that these caterpillars were quite abundant in Boston and its vicinity in 1848, '49 and '50; and that the horse-chestnuts planted beside the streets and in the parks of the city —trees which commonly are quite free from insect depredators—were almost entirely stripped of their leaves by them.

Fortunately it is a very easy matter to exterminate these insects from the trees which they invade. Therefore fruit trees especially should always be kept free from them; for wherever one of these insects takes up its abode upon a tree, a part of its progeny, for several generations, will be apt to remain there, sustaining themselves at the expense of the tree. During the winter and at any time before the foliage puts forth in the spring, their nests of eggs can readily be discovered, from the dead leaf adhering to the cocoon to which the eggs are attached. They are thus far more easily detected than the eggs of the common caterpillar, which form a ring or rather a band surrounding the twigs. These nests of eggs may be gathered by cutting off the twigs to which they are attached, or tearing them with the cocoon from off the larger limbs. Occasionally a cocoon will be met with, without any eggs upon it. In such cocoons the chrysalis is still lying unhatched. But as this chrysalis upon the coming on of warm weather, will give out a moth to deposit its eggs upon the cocoon, it is equally as important to gather these chrysalids as the eggs—throwing all alike into the fire. None but the veriest slovens will allow their fruit trees to be depredated upon by insects which can be so easily subdued as the Vaporer moth. Asa. Fitch. *Salem, N. Y., March, 13th*, 1856.

Transplanting Fruit Trees.

[We are much indebted to Judge Cheever for the following valuable hints on this subject. His long and very successful experience, both in farming and tree planting, amply proves that the operations of either the field or the orchard need only be conducted with the requisite degree of care and thought, to avoid most of those losses to which both are commonly subject. We will hazard the promise of far less than the ordinary proportion of failures in transplanting, to those who pay attention to the directions he gives below, and we trust he will permit our readers to avail themselves more frequently in future of the benefit of his practical and reliable advice.]

Seeing an article in the Country Gentleman of the 27th March, upon the subject of the "Transportation of Trees," it occurred to me that a few suggestions upon the subject of transplanting fruit trees might not be out of place at this time of the year.

I have had some experience in transplanting trees, and latterly with good success. I set an orchard of 165 trees in 1851, and every one lived. I set three small orchards in the spring of 1854, and notwithstanding the almost unprecedented drouth of that year, I lost but one tree. Two of the orchards were upon very dry gravel soil. There I lost none. I dug a pit for each tree about 16 or 18 inches deep, in basin form, about 3 feet in diameter, and put in a large wheelbarrow load of good loam soil. Upon this I set the tree, holding it in my hand while my man with a shovel sprinkled the soil which came from the top of the pit on to the roots, having been first made fine. The tree is moved up and down so that the fine soil is worked under the roots until they are fully covered, and should the roots be so shaped and so clustered as to form a roof to prevent the soil getting fully up under the center, the hand is used to accomplish it. When the roots are covered, a quart or two of water is turned upon the center of the roots, which forms a mud directly under the body of the tree. Then dry soil is again thrown on, upon which the person holding the tree steps, planting his feet 4 or 5 inches from the tree upon each side, and so passes thereon round it. The water or mud will by this pressure be forced up to the top of the ground, which gives evidence that all the space under the roots is filled.

The soil is then thrown around the tree to about the height it was in the nursery, but raising a circle around it high enough to hold a pailful of water. If the season is one with ordinary rains, they will leave out and grow. If they should not, or the season is dry, place around them some broken straw and long manure, giving each one a pailful or half a pailful of water. Should any fail to leave out with this treatment, tie around the trunk quite up to the limbs or further, a thin layer of straw, putting on the upper layer first, and then with a ladle turn water upon the upper end of the straw until the tree is thoroughly wet, and repeat it daily. This will seldom fail to bring out the leaf; and save the tree.

Should any of the trees falter through the summer, as they may, if a dry one, give them a pail of water in the basin prepared f r it, and they will go through. This is some trouble, but if a tree is worth buying and setting, it is worth saving.

I have saved trees which had been very much dried before they reached me, by digging a trench in a wet place, and heading them down so that the body will be at an angle of, say, 30 degrees with the ground. If water shows itself in the trench it is no objection. When the roots are so covered, the buds will open if there is any vegetable life in the tree. They should then be set.

I very much prefer the spring to the fall for setting trees; but as the early part of the fall is the best time for getting a chance of trees in the nursery, it is well to take them out at that time, and heel them down in dry ground, in a protected spot, until spring, and then set them. I treated pears and plums in that way the last year taken from Thorburn & Co.'s Nursery, Albany, and every one lived, and more than half of them ripened fruit the first year. S. Cheever. *Waterford, March 27th*, 1856.

Destroying Bushes.

Messrs. Editors.—I have a number of acres of old pasture, fed by cattle and sheep for many years—some of it has grown up to bushes and is nearly valueless for feed. Now could you tell me how to kill the brush and bring in grass again? It formerly produced good crops, but being inconvenient to manure on account of distance from the barn and cattle-yard, it has been neglected for some twenty years. Should I be likely to get a remunerating crop of corn by plowing in bushes and every thing else on the soil, and then turning in the corn-stalks and seeding to grass?

Is there any way to destroy running blackberry briers in a mowing lot? I have practiced for a year or two picking them up after the plow and harrow, but this does not get them all. A Subscriber. *Gales Ferry, Ct.*

It is not probable that a plow would get through the roots of these old stubby bushes. Grubbing would therefore be necessary. Even if plowed under, the old roots would prove troublesome for some years to come. Remove all that the plow will not turn up, and sow *corn-fodder* in drills, at the rate of 2 or 3 bushels per acre—cultivate the space between the rows two or three times with a horse, till the fodder gets too large to admit of it. We have never found any thing equal to this for bringing old rooty,—turfy land into good, clean, mellow condition. The dense shade of the corn fodder smothers down the growth of every thing else. The corn may be cut for fodder, or plowed in for enriching the land.

This same treatment is the best remedy, also, for brier roots. We have never been able to eradicate them completely except by thorough tillage. If any one else knows a better remedy, we should be glad to give it to our readers.

Guano at Baltimore.—The following are the imports of Peruvian guano into Baltimore for seven years:

1849	2,700 tons.	1853	32.152 tons.
1850	6.800 tons.	1854	58.927 tons.
1851	25.000 tons.	1855	30,695 tons.
1852	25,500 tons.		

Inquiries and Answers.

Salt and Lime Mixture, &c.—I wish to know your opinion of the value of *soda* for agricultural purposes—made by incorporating two parts of lime and one of common salt, and to what crops it will be found most useful. Also the relative value of the white sugar beet and the long red mangold wurzel. I have grown the sugar beet and think it best. Is it so? William Arkell. *Canajoharie, N. Y.*

The mixture of lime and salt, which, after remaining together for some time in a moist state, forms considerable quantities of chloride of lime and soda, is generally regarded as a useful manure, but we are not aware that any extensive and precise experiments have been performed to show on what crops and with what soils it proves best. Like all special manures, it sometimes is quite beneficial, and at others not at all so, and is uncertain in its results. We should decidedly recommend its use by being first added to the compost heap.

We do not know of any trial to prove the relative value of the mangold wurzel and sugar beet, but several practical farmers have, after a trial of both, expressed their preference of the latter.

Beans.—A correspondent wishes to know the best and most profitable kind of beans. We have some of the more prolific white varieties, the best for main crops. There are several *early* bush beans, but we have not had sufficient experience to decide on the best. Will some of our correspondents, who have had more, please furnish the desired information, and state the product from a given area?

Steven's Seed Sower.—*S. H. W.* The price of this machine, of which a cut and description was given in our last no., is $30 for hand sowers, sowing 6 feet wide—horse machines, sowing a breadth of 10 to 12 feet, $80.

Thrashing Machines for Oregon.—*R. A. Gesner.* Pitts' Thrashing Machine, with horse-power, separator, &c., all complete, and admitting four to eight horses, is furnished for $280, the power being *iron*, which costs rather more, but is more compact for shipping, and more durable. The weight of the whole is probably a ton and a half—we cannot give the cost of conveying by ship to Oregon. It may be ordered through John Rapalje & Co. of Rochester, N. Y.

Sour Milk for Cows.—*C. E. Grice.* Pure, *undiluted*, sour milk, is so excellent for pigs, and so profitably fed in this way, that it would be better to pay a high price for the pigs, if necessary. We have known cows to drink it freely, and probably any cows may be soon taught to do so, but we cannot say how much benefit is thus derived from the sour milk, from anything but guessing, which is never satisfactory. We think pigs the most profitable manufactory of the two.

Spontaneous Growth of Plants.—*C. S., Walkill, N. Y.* Plants and trees often spring up after clearing and burning—earth from well-bottoms often produces plants—and second-growth forests are often quite different from the first. To the inquiry, "how came the seed there?"—it is impossible to answer without a knowledge of all the circumstances. There are so many ways for seed to become disseminated, and they often remain so long dormant, that there is no necessity to suppose that plants will spring up spontaneously. They are often carried by winds, by birds, by running water, in animals, adhering to the hair of animals, with drifting snows, &c., and some of them are so small that thousands are scattered in every direction unperceived. These causes all operating for days, months, and for successive years, accomplish enough for all the results that are witnessed. Sometimes what was at first fresh, clean earth, from wells and cellars, may be in a day or two thickly sowed with seeds in different ways.

Chorlton's Grape-Grower's Guide.—*H. C. W., Sheldon, Vt.* We can send you this work—price 60 cents.

Guano for Orchards.—How shall I enrich the soil of my orchards? Would Peruvian guano be proper, beneficial, and safe? If so, how much to the acre? A. C. G. [Three or four hundred pounds of guano might be applied per acre to an orchard at a time, annually. It would be best to mix it with several times its weight of peat or mellow loam, and after remaining some days at least, to scatter it broadcast, harrow it, and then plow it in. Guano is uncertain in its results. We should prefer a compost of good manure and peat or turf, with some ashes and perhaps lime. This should be spread, harrowed, and plowed in, and will not fail to produce a good effect on all soils not fertile enough.

Supply of Fruit for the Entire Year.—It is well known that about 20 years since many farmers (extravagantly excited) cut down their apple orchards, since which time the tide has been rushing us on toward the other extreme, crying, "fruit, fruit," both in city and country—rich and poor, all unite in saying, "Give us a goood quality, and plenty of it, the livelong year." And what but apples can be furnished the entire year in our locality? I fancy the time will never come when we farmers shall grow too many apples of the best quality. A. C. G. *Sandlake, N. Y., March*, 1856. [Apples must constitute the chief supply of fruit in Rensselaer county, ripening from soon after mid-summer, through autumn, winter and the next spring. But some other fruits should by no means be forgotten, namely, strawberries by the first of summer; the earliest cherries (Early Purple Guigne, May Bigarreau, &c.) almost as soon; followed by raspberries, currants, gooseberries, and the new blackberries; plums from mid-summer till frost; and pears from summer till next spring. These will all succeed there by good management.]

Various Inquiries.—Would the improved King Philip corn be a suitable variety for this section of country? We are in want of a variety of smaller growth and earlier maturity than the gourd seed, and still a productive kind? (1) Is there any horse-power, superior as a stationary power, to those on the endless chain principle, to do the thrashing, &c., on a small place, where one horse would have to be used most of the time? (2) Would it affect the running or draught of a plow to shorten the beam, provided the point of attachment to the beam were lowered so as to bring it in the line drawn from the point of resistance at the mould board to the point of draught at the horse's shoulder? (3) Lastly—What plow will make the best work in stiff sod, turning a furrow about 6 by 9 inches? (4) A New Subscriber. *Burlington, N. J.*

(1) The King Philip corn would doubtless succeed well, but it must be planted much nearer than the gourd-seed, or the crop will be very thin—probably in drills would do best. We think that at Burlington the Dutton (12-rowed yellow) would answer better, if planted thick enough—being larger than the former.

(2) We know of none superior to the *best made* endless chain powers. These are often placed too steep for the comfort and most profitable working of horses. It is better to give them a more horizontal position, and let the horse draw in harness.

(3) If too short, it will not run so steadily—and this alone would make it harder for the team.

(4) There are many excellent sod-plows, manufactured in different parts of the country. We cannot say which is best of those sold in the neighborhood of our correspondent. Ruggles & Co. make excellent ones, which may be had of R. L. Allen of New-York.

Insects in Pear Limbs.—*Philo, Linton, Ia.* The limb containing the eggs in the inner bark, may not be seriously injured. There are several insects that puncture limbs, more especially of the Cicada family, that exert only mechanical injury by puncturing for the eggs. We cannot say what the insect is, from merely inspecting a portion of a shrivelled shoot. It would be well to watch the results, and secure specimens of the insect, if likely to prove destructive. They may be sent by mail in small tin boxes.

Lice on Horses.—*Wm. Marks.* It is said that horses become lousy from hens, when the roost is too near the stable. It is worthy of inquiry whether they are infested by other species of lice—requiring different treatment. A skillful agricultural friend informs us that he has found two remedies effectual for this difficulty—the first, washing the animal in a decoction of tobacco which needs repeating two or three times to be complete; and secondly, rubbing dry ashes all through the hair, and then turning the animal out in a rain storm—this is a rather sharp remedy, destroying a part of the hair. Cole, in his "Diseases of Animals," says that horses badly infested have been at once relieved by soaking all over in "new rum." The removal of all litter which may contain lice, whitewashing walls, and brushing, washing and oiling harness, must not be overlooked, in connection with the remedies.

Gravel Houses.—*A. C., Athens, Tenn.* See note on this subject in Co. Gent. of 6th March, p. 160 Who can answer the following, from their own practical knowledge? "Does the gravel wall, recommended by Mr. Fowler in his "Home for All," stand the weather well, and is it as cheap as recommended?"

Boulders.—Your correspondent who wishes to learn how to split or crack boulders and large rocks to pieces will find the following an effectual method of getting rid of them. When the ground is wet, dig a hole by the side of the boulder, and roll it in, and cover it up deep enough to be out of the way of the plow. S. B. Buckley. *West Dresden.*

Coloring Butter.—Will it answer to color butter with carrots if you design to pack your butter? I fear the raw vegetable matter might sour and spoil the butter, unless it were used immediately. Will some one experienced in this matter, inform me through the Cultivator? M. F.

Foxes Killing Lambs.—Five wool-growers in this vicinity raised about 300 lambs last season, and of those dropt, about 130 were destroyed by foxes. Is there any remedy short of the destruction of the foxes, that will prevent such depredations? If you or any of your readers know of any, a favor will be conferred by making it known through the columns of the "Country Gentleman." D. G. Williams. *East Dorset, Vt.*

Pulling Stumps.—Your Illinois subscriber wishes to know where he can purchase the cheapest and best stump-puller. The cheapest and best I know anything about, is a log from 8 to 12 inches at the butt. It is best not to spring. After digging around and chopping the main roots off, chain the sweep to the largest roots in such a manner as to prevent it from flying up; at the end you hitch your team on. Your oxen and a pry at the stump, is all the stump puller a farmer wants. Luther Hampton. *Woodbridge, N. J.*

Smut in Oats.—I notice in your paper of March 20, some inquiries about smut in oats. I offer my experience with regard to the second. In 1844, my oats were seriously infected with smut. The spring following I washed my oats clean as I could in water, then soaked two hours in strong lime-water, then applied dry plaster, and then sowed. The result was a first rate crop, without one ear of smut. I prefer this method to simply washing and rolling in dry lime, on two accounts—first, owing to the shape of the kernel, it is not easy to wash off all the smut—second, it is still harder to apply dry lime to all parts of the kernel. Allan Palmer. *Castleton, Vt.*

Peach Blow and Western Red.—Can any one inform me if the Peach Blow of the Boston market, and the Western Red of New-York are "one and the same" potato. Last spring I planted the produce of the foregoing potato "side by side," with Western Reds, but was unable to perceive any difference in them. If there is none I should like to know it, as many farmers in this county are sending to Vermont and Massachusetts for their seed, imagining that the Peach Blow is a superior variety. E. L. Coy. *West Hebron, N. Y.* [The potato known as the "Western Red," in some parts of the country, is the same as that known as the "Peach Blow" in other sections.]

Work on the Hog.—*E. B., Milan, O.* Youatt and Martin's is the best work on the Hog—price $1.25, sent by mail, prepaid. There is a smaller work by Richardson—price 25 cents. We very much need a good American work on the breeding, management, and fattening of swine. We cannot answer your other inquiry.

Licorice.—*J. S. E., Freeport, Ill.* The roots of this plant can be obtained of W. R. Prince & Co., Flushing, N. Y. According to Loudon, it requires a deep sandy loam soil, trenched to the depth of two and a half to three feet, and three years' growth to mature the roots.

Time for Grafting.—Please inform me the proper time to cut grafts, and also the best time to graft, &c. George T. Osborn. *Pawling, N. Y.*

Grafts may be cut at any time between the fall of the leaf in autumn, and the commencement of the circulation of the sap or swelling of the buds in spring. Cherry trees must be grafted very early, or the grafts will not succeed. The best success we ever had (with several thousands,) was on the first approach of warm weather, while the snow was yet six inches deep under foot. As a general rule for cherries, they must be set a fortnight before the buds swell. If set just at the swelling of the buds, they rarely grow. Plums should be grafted next after cherries. Apple and pear grafts do well if set while the buds are swelling, the grafts having been kept dormant. They will grow if set even when the stocks are in leaf, but their growth is not so vigorous as when set earlier.

Spring Wheat.—Can you, or any of your numerous correspondents inform me, where the "China," or "Canada Club" spring wheat can be obtained—the cost per bushel, &c. Which, in your opinion, is the best kind of the many varieties of spring wheat to cultivate? L. L. Weeks. *East Line, N. Y.* [The different varieties of spring wheat can be had at the stores of Pease & Co. and Emery & Bros., in this city, at $2 25 to $3 per bushel. For comparative merits of the different varieties, see an article in the Co. Gent. of Feb. 14, or in the March Cultivator.]

Leached and Unleached Ashes.—Will it answer to use guano and leached ashes together in the furrows for potatoes? If not, will a pile of six or eight tons leach sufficiently from fall to spring, to be laid on the ground? Plaster and phosphate of lime have been used here without any success. Is poudrette a manure that will answer here? A Subscriber. *Suffolk Co., N. Y.* [We have already stated that guano, used as a constituent of compost, is the true way to use it, in which way it generally succeeds more or less. Our correspondent must give it a full and fair trial, on a small scale—this will be more satisfactory than any theory or opinion. Unleached ashes are stronger than leached, and consequently may be used in much smaller proportion—say one-fourth or one-fifth. If applied when strong and fresh to land in autumn, and evenly and thinly spread, the potash will be dissolved by rains and carried into the soil, and exert a very beneficial influence in all cases where this ingredient is needed. Good poudrette will be useful in all soils where common yard-manure succeeds.]

Paint for Gates.—Wishing to make a number of farm gates this spring, and being of oak and hard to plane, I should like to paint them with some cheap paint. In the March No. of the Cultivator some are mentioned. Would they do for gates? How much would gas-tar cost? E. P. St. John. *Oberlin, Ohio.* [Gas-tar can be usually had at coal-gas-works, for about $3 per barrel, and may therefore be regarded as a very cheap paint. We have never found anything its equal in preserving wood from decay. It would be admirable for farm gates, where the black color is no objection. We can give no practical information on the comparative cost and value of blue vitriol as applied to wood.]

What is the best or right quantity of peas to sow broadcast to the acre, to produce the greatest growth for plowing under in the fall for the improvement of land of a sandy thin quality. I speak both of the common kind and Oregon. O. C. A. *Center, N. C.* [We can answer only for the common pea, which is usually sown at the rate of about three bushels per acre, but we would sow at least six for green manure. This quantity of seed will give nearly double the amount of vegetable growth, which would be of much greater value than the increased cost of seed. Both ways may be tried, for the sake of showing the superior economy of the thick seeding.]

Grown Wheat.—I want to inquire if wheat that has grown in the stack, some of it an inch or two long, will be fit for seed? C. W. W. *Eden Prairie, M. T.* [It will not be safe to use it for seed, as but little of it, if any, will start again.]

Growth of Norway Spruce.—How long will it require the Norway Spruce to grow to 8 or 10 feet in height, so as to form a good screen to a yard, from winds, and is it the quickest that could be had of evergreens, and how thick should they be set out? R. Hatton. *Waynesville, O.* [The Norway Spruce will grow 3 or 4 feet in a year, if it has good soil and a fair chance. Trees 2 or 3 feet high when set out, and receiving the best management in transplanting, would be 10 feet high in 3 or 4 years. On all soils, the Norway Spruce is the most rapid and certain evergreen—although on *favorable* soils, the white pine will grow as fast.

Compost.—I want to make a fertilizer for corn and potatoes, by mixing hen manure, night-soil, coal dust, and plaster together—want the whole dried and pulverized fine. How shall I do it, and what part of each should be used? Would ashes be beneficial? An early answer from some one is desirable. W. H. Jennings. *Milton, Ct.* [The exact proportion of these ingredients are not essential. Of the two first, one or both may be used as they happen to be on hand. Enough charcoal dust should be added to render them dry enough to crumble when worked over, and a fourth to a tenth of plaster may be added. These ingredients should be left in a sheltered heap for a few weeks, until sufficiently dried through, and then pulverized finely by working over with a steel rake.]

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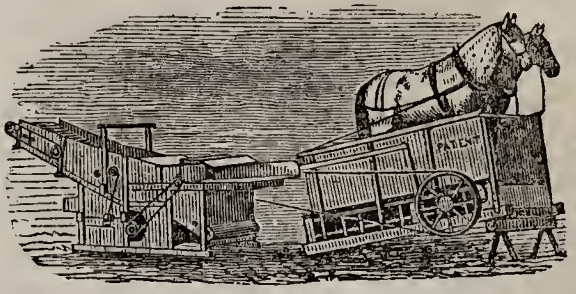
Winter in Indiana.—A correspondent at Linton, Greene Co., says the winter there has been the coldest since its settlement. The thermometer has been down to 26 and 28 degrees below zero, with an unusual amount of snow. The writer adds:—"The effect of the cold on the peach trees is sad indeed; they are killed down as far as they stood above the snow, and my Virgalieu pear trees are also killed. Whether they are generally killed or not, I am not prepared to say. The Isabella grape vine has nearly all the last year's wood killed."

Peach Trees Killed.—Extract of a letter from a subscriber at Nashville, Tenn.:—"I find on examining my peach trees that most of them are completely destroyed by the severity of the winter. My orchard contains over 3000 trees; three-fourths of them are entirely dead; possibly a few may survive, but badly scathed. It is rather an unpleasant sight to look at three thousand trees of the choicest varieties, which produced the past year over three thousand dollars after all expenses paid. On many of the trees the bark is loose upon the stem and can be taken off the wood, looking as black as mahogany. I have not heard of the condition of other trees in this vicinity having just discovered my own loss.'



Schenectady Agricultural Works.

IN consequence of the increased demand for their
Improved RAILWAY HORSE POWERS,
THRASHERS AND SEPARATORS,
Combined THRASHERS and WINNOWERS,
Circular SAWING MACHINES and CLOVER HULLERS,

The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly. G. WESTINGHOUSE & CO.

Schenectady, March 6, 1856—w&mtf

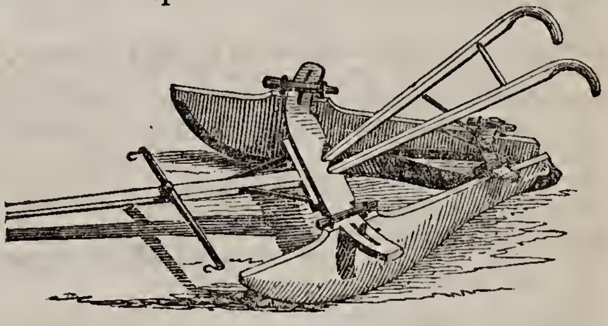
Sharon, Feb. 12, 1856.

Messrs. G. Westinghouse & Co.:

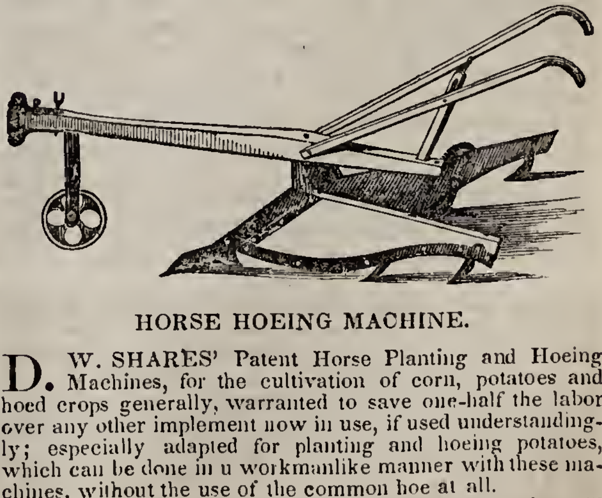
Gents—The two-horse power, thresher and winnower, that I bought of you last August, has worked to my entire satisfaction. The persons for whom I have threshed say they never had a machine work equal to it. I have thrashed from 300 to 600 bushels of oats per day, and from 150 to 225 bushels of wheat. In all cases it cleaned the grain more perfectly than is usually done by hand mills. I have also threshed from 300 to 350 bushels of buckwheat in a day, I have threshed about 25,000 bushels of grain with the machine since I purchased it, all with two horses, and they are now in much better condition than when I commenced. There has been no repairs to the machine yet. Yours, &c.,

May 1—w2tm1t MICHAEL SUTPHEN.

Important Aid to Farmers.



HORSE PLANTING AND HOEING MACHINE.



HORSE HOEING MACHINE.

D. W. SHARES' Patent Horse Planting and Hoeing Machines, for the cultivation of corn, potatoes and hoed crops generally, warranted to save one-half the labor over any other implement now in use, if used understandingly; especially adapted for planting and hoeing potatoes, which can be done in u workmanlike manner with these machines, without the use of the common hoe at all.

For further particulars, address the subscriber, who will send circulars, recommendations, or any information desired, free, to any part of the United States. The above machines are manufactured and sold by the patentee. Patent rights for sale. D. W. SHARES, Hamden, Ct.

HORACE P. SHARES, of Hamden, Conn., sole Agent for the State of New-York. April 3—w1tm1t*

Notes for the Month.

The Oakes Cow Beaten.—From the milk of the celebrated "Oakes cow," there was made, according to the record, in 1814, 300 lbs. of butter—in 1815, 400 lbs., and in 1816, 484¼ lbs. Mr. John H. Carswell, of West Exeter, Otsego Co., N. Y., has furnished us a statement of the product of his Devon cow "Beauty," from which it appears that in forty-two weeks, commencing Feb. 6, 1855, she gave 7,450 lbs. of milk, from which was made 512 lbs. of butter. This is an average of about 12½ quarts of milk, and but a fraction less than an average of 1¾ lbs. butter per day for the whole 294 days. This is a very extraordinary yield—one which has very rarely been equalled. We will not ask, who can "beat," but who can *equal* this?

"Beauty" received the first prize as a seven year old cow at the Otsego Co. Fair in 1854, and the first as the best milch cow in 1855. Beauty was got by "Star," from Mr. Blackman's stock of Butternuts, and her dam by "Red Jacket," from Madison county.

In connection with the above, we may state that an imported Alderney cow, "Flora," owned by Mr. Motley of Mass., yielded, from May 10, 1853, to April 26, 1854, (fifty weeks,) 511¾ lbs. of butter. The English books, however, record an instance where the product greatly exceeded either of these instances—that of a Sussex cow, owned by Wm. Cramp, of Lewes, Sussex, whose milk, from April 6, 1807, to April 4, 1808, 51 weeks and four days, produced 675 lbs. butter.

Mr. Peter McHarg of New Scotland in this county, has just purchased of Mr. Carswell one of "Beauty's" calves, a two-year old bull called "Chief," got by "Osceola," who received the first prize as a two-year old bull at the State Fair in 1852, and the second prize as a three-year old at the State Fair in 1853. To "Chief" was awarded the first prize for yearling bulls at the last Otsego Co. Fair.

White Flax Seed.—The white flax seed, advertised by Mr. Thorburn, was raised by Mr. J. P. Noxon of White Creek, Wash. Co., N. Y., who says—"The white Russian flax seed which I exhibited at the State Fair, and sold to Mr. Thorburn, was raised from seed imported from Russia. It is said to produce more and a better quality of oil, than the common seed—the average crop is ten to fifteen bushels seed, and about 250 lbs. lint per acre, both of which are considered at the flax mills as superior to the common kind."

Morgan Horses.—D. C. Linsley, Esq., of Middlebury, Vt., is preparing a history of this celebrated breed of horses, which will occupy about 250 pages—price $1—sent by mail free. They are worthy of this honor. Probably no single animal produced or introduced into this country ever left such decided marks on his progeny as the original Justin Morgan horse, nor has there been one whose produce has been such a source of profit to their breeders. The origin and history of this horse was first given to the public in The Cultivator in 1842, by Justin Morgan of Stockbridge, Vt., and John Morgan of Lima in this state.

Advertisements.—The Horse Hoe of Mr. Shares is highly praised by those who have used it.—For further account of Mr. Cahoon's extraordinary Seedling Rhubarb, see Co. Gent., vol. 6, p. 239.—Mr. Wainwright's Devon cattle and Essex pigs are among the best in the country.—See also new advertisements this week from Parsons & Co., J. M. Thorburn & Co., A. M. Tredwell, John Saul, E. C. Fairchild & Co., Hovey & Co., and others.

Distinguished Guests.—Great preparations are making for the inauguration of the Dudley Observatory and the opening of the new Natural History Rooms in this city, to take place in August next, in connection with the annual meeting of the American Scientific Association. Invitations have been extended to the most eminent scientific men abroad, and hopes are entertained that Prof. Liebig of Munich, Prof. Airy of Greenwich Hospital, Le Verrier, of France, Argelander, of Germany, and the Struves, of Russia, will be present. A free passage for such gentlemen as may be able to avail themselves of the invitation, has been offered by the owners of the Cunard, Collins, Glasgow and other lines, and James S. Wadsworth, Esq., of Geneseo, has tendered $500 to defray the expenses of Baron Liebig.

Billing's Corn Planter and Fertiliser.—Since the high commendation of this machine, by a subscriber in Otsego county, published in another part of this paper, was in type, we have received an advertisement from its manufacturers, which will appear next week; and we are sorry to learn that, as yet, no arrangements have been made for its sale in this State. If it equals the representation given of it by our correspondent, whom we know to be entirely disinterested in the matter, it should be for sale at all our agricultural warehouses.

Dioscorea batatas.—Somebody has sent us a copy of "Life Illustrated," with an article marked, on this plant, from Wm. R. Prince, in which the writer attempts to be very severe on the article in the Co. Gent. of Feb. 28, which represented the plant as altogether unworthy the praise Mr. Prince and others have bestowed upon it. We do not deem any reply to the remarks of Mr. P. necessary; but we add that several gentlemen in Great Britain, who gave it a fair trial the last year, have pronounced it an entire failure. We had marked some reports of trials with it, reported in a late no. of the Irish Farmer's Gazette, for insertion, but the paper has been mislaid. A writer in the "Country Gentleman's Newspaper," London, says he made a trial of it last year, and used every means to coax them forward for three or four weeks, giving them a good soil, and a good and warm situation; and the result was a product of *three ounces* from one root.

Since writing the above, we have received the annexed, to which we cheerfully give place:

The following is an extract of a letter to the Com. of Patents from W. D. Brackenridge, late public gardener in Washington, and formerly of the U. S. Exploring Expedition, residing at present at Govanstown, near Baltimore, Maryland: "The two small tubers of the *Dioscorea batatas* which you gave me last spring, I started in a hot-bed and planted them out about the middle of May, in a deep, yellow, loamy soil. About the middle of November I dug the roots, and found two of them over two feet in length and four inches in circumference. Next season I intend to plant these roots and the small tubers propagated from the leaves, and allow them to remain in the ground during next winter, as I think in a second year they will attain a large size, after protecting them from frost by covering with straw or leaves."

Ag. Colleges.—The Legislature of New-York have just appropriated $40,000 toward the founding of an Agricultural College, to be paid when the Trustees of the Institution shall have secured a like sum by subscription. This sum has all, or nearly all, been secured, and we may therefore reasonably look for the establishment of the institution as soon as the necessary arrangements can be perfected.

The Legislature of Maryland have also just made an annual appropriation of $6,000, for the support of an Ag. College. This annual appropriation is, however, not available to the college until subscriptions to its capital stock to the amount of 2000 shares at $25 per share be actually secured and made good.

Panseys and Daisies.—H. W., *West Meriden, Ct.* You can get these plants at all the principal nurseries in the country.

Award of Premiums for 1856.

The time allowed for competition for the prizes offered for subscriptions to our papers having expired April 10th, we announce the following awards, premising that any error which may have crept into our accounts will be rectified with the greatost pleasure.

1.	Hiram Mills, Lewis Co., for	$173.83	$50
2.	I. W. Briggs, Wayne Co	133.40	45
3.	John R. Howard, Mass.,	96.67	40
4.	Dutchess Co. Ag. Society,	95.50	35
5.	E. Benedict, Clinton Co	75.57	30
6.	C. F. Webster, Sr., Indiana,	75.10	25
7.	L. W. Curtis, Madison Co.,	74.00	20
8.	G. W. Durant, Albany Co.,	64.96	15
9.	C. B. Sheldon, Delaware Co.,	64.00	10
10.	A. Cary, Montgomery Co.,	61.25	5

11. The Six Quarto Vols. Cultivator to each of the following Ten:—

P. R. Close, Connecticut, for	$54.67
Cumberland Co. (N. J.) Ag. Society,	51.38
A. L. Saunders, Madison Co.,	49.83
E. Link, Tenessee,	48.00
Geo. Hamilton, Nova Scotia,	46 40
St. Law. Co. Ag. Society,	45.00
D. Hallock, Suffolk Co,	42.96
H. W. Tryon, and L. Selleck, Orange Co.,	42.11
G. W. Gilbert, Connecticut,	42.00
Robert Bell, Canada,	40.30

12. The Transactions N. Y. State Ag. Society for 1854, to the following Ten:—

Jas. Wells, Fulton Co., for	$37.81
C. G. Wetmore, Livingston Co.,	37.50
William Newbury, Michigan,	33.75
A. S. Moss, Chautauque Co.,	33.00
P. Stedman, Massachusetts,	33.00
J. F Gritman. Greene Co.,	32 67
A. Whedon, Vermont	32.00
H. D. Bennett, Michigan,	31.50
G. L. Vincent,	30.00
E. H. Bliven,	29.16

13. In addition to the above, which comprise all the premiums offered, we will send either of the volumes of the Cultivator for 1844 or 1845, bound, to each of the following gentleman, as they may respectively prefer:

Messrs. B. Hoyt, Connecticut, R. C. Richardson, Tennessee, A. Willard, Greene Co., H. Whipple & Son, Mass., L. A. Brown, Conn., Jas. Lee, Vt., John Bush, Jr., Delaware Co., N. S. Hakes, N. J., N. Starr, Jr., Delaware Co., H. Sheppard, N. J., J. M. Hart, Oswego Co., G H. Parkhurst, Montgomery Co., N. S. Pond, Conn., H. V. Welton, Conn., Geo. Edwards, Steuben Co., W. J. Blakely, Mich., and J. W. Gamble, Ohio.

To all the above, as well as many others, we are greatly indebted for their generous exertions to secure the increased circulation of our Journal. Although fully aware that the premiums awarded afford in many cases but very slight compensation for trouble and expenses incurred, as well as that multitudes of our friends can receive no more substantial reward for their efforts, than our thanks, and their own consciousness of some self-denial in a good cause,—nevertheless we can but indulge the hope that both successful and unsuccessful will be encouraged to "try again" another season, with renewed spirit. We have already endeavored to send bound copies of the Register to all who have sent twenty subscribers to the Cult. and Reg. with the money, and whose names are not included in the above lists. If any who have been accidentally omitted will inform us, they shall now receive it.

We hold the volumes of the Cultivator and Transactions above awarded, subject to the order of the recipients. The *quarto vols.* Cult. are too heavy to go by mail? Will our friends let us know how they prefer to have them sent? The Cash Premiums will be paid on demand.

Sales of Short-Horns.—We learn that S. P. Chapman, Esq., of Mount Pleasant Farm, Clockville, Madison Co., N. Y., one of the best breeders of Short-Horns in the State, has recently made several sales from his fine herd. He has sold his "Second Duke," a red bull calf, got by Halton (11552,)—dam, the imported cow "Agate," to Messrs. French & Ray, of Lenox, Ashtabula Co., Ohio. Martin Heydenburk, of Kalamazoo, Mich., purchased "Third Duke," got by Halton—dam, the first premium Bates heifer, "Hilpa 4th;" and Mr. V. J. Birdseye, of Pompey Hill, Onondaga Co., N. Y., has purchased the cow "Ruby," got by Symmetry (12170)—dam, Willey 3d —"Ruby 8th," got by Halton—dam, Ruby 2d; and "Duchess 3d," got by Halton—dam, the first prize cow Duchess.

Fruit Trees Destroyed by Mice.—The past winter and present spring will be long remembered by fruit growers and nurserymen, for the great number and *destructive attacks of mice*, in western New-York. Nearly every man who has young trees has suffered; and many, severely. Nurserymen have lost variously from one to six or seven thousand dollars each. Whole rows, and even blocks, of trees have been girdled from one end to the other, with occasional exceptions, even on very clean ground. The aggregate loss in western New-York, is probably not less than half a million dollars. The writer is unable to answer separately the inquiries made of him, for the best way to save the trees. If they are several years old and valuable, they may be saved with much certainty by cutting or chiseling several furrows between the upper and lower bark, and fitting into these portions of limbs, bark outwards, made to fit accurately, like grafting, the edges of the bark above and below, pared smooth for this purpose. These form connecting links between the two parts, and if well done will save the tree. They are to be well waxed over, and 3 or 4 stout stakes are to be driven near, to prevent their being displaced by hoeing, plowing, &c., a common cause of failure. The greater the number of these connections, the sooner the whole wound will grow over. The vigor of the tree will be diminished for a time. A skillful workman will thus save 20 or 30 good trees in a day. If the girdled portion is long, the operation will be more difficult. Where the *outer bark* only is taken off, waxing alone will answer.

A Good Heifer.—I send you the weight of a heifer 3 years old, a grade Durham, which I think very good for a Connecticut farmer, though perhaps not very great for New-York State farms:

Live weight,	1585 lbs.
Dead "	996 "
Entrails, fat or rough tallow,	139 "
Weight of hide,	86 "

The heifer was raised by my father, Gilbert Close, Esq., of Stanwich, Ct. P. R. C.

Good Pigs.—Col. Newton Wilcox of West Winfield, Herkimer Co., N. Y., raised and fatted two pigs, half Suffolk, that dressed 744 lbs.—one weighed 398, the other 346 lbs. Age one year and five days. Slaughtered the 15th of March, 1856.

BONE DUST,

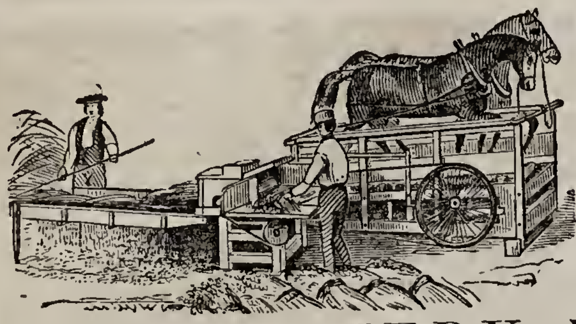
GROUND, Turnings and Sawings.
For sale by A. LONGETT,
34 Cliff-st., corner of Fulton, New-York.
Feb. 27—wStm3t

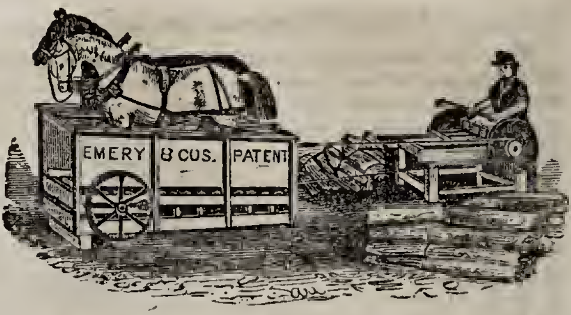
"CONSTERNATION."

THIS celebrated imported thorough-bred horse, will stand the present season as heretofore at the farm of J. B. Burnet, Esq., 1½ miles west of Syracuse. Terms $10 the season—$20 to insure. The money to be paid in advance in all cases. Where insurance is effected, a receipt will be given, promising to refund the money in case the mare does not get in foal. Pasturage for 50 cents per week, at risk of owners.
J. B. BURNET,
May 1, 1856—w9tm2t Syracuse.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep French Sheep. Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan 1—w&m1y*





EMERY BROTHERS.

ORIGINAL AND SOLE PROPRIETORS OF THE

ALBANY AGRICULTURAL WORKS,

ON HAMILTON, LIBERTY AND UNION STREETS.

WAREHOUSE, SEED STORE AND SALES ROOMS,

52 STATE STREET, ALBANY, N. Y.

MANUFACTURERS OF AND WHOLESALE AND RETAIL DEALERS IN

Emery's Patent Changeable Railroad Horse Powers and Overshot Threshing Machines and Separators:

Agricultural Machines and Implements of the Latest and most Improved kinds Extant;

DEALERS IN GRAIN, FIELD, GRASS, GARDEN AND FLOWER SEEDS AND FERTILIZERS.

◆

THE PROPRIETORS OF THE ABOVE NAMED ESTABLISHMENT ARE THE SOLE OWNERS AND MANUFACTURERS OF

EMERY'S PATENT HORSE POWER, &c.,

☞ *All Arrangements with other Parties for their Manufacture having Expired.* ☜

THE above Power is the only kind in use, which by their gears and pulleys are adapted to different degrees of force and velocity, thereby adapting its use to the various purposes of the farmer and mechanic. It is this which has given to it its world-wide reputation. Upwards of Twelve Hundred sets were sold of this patent, in this city alone, the past season, and not one found unsatisfactory or returned, notwithstanding the warranty to give satisfaction to the purchaser.

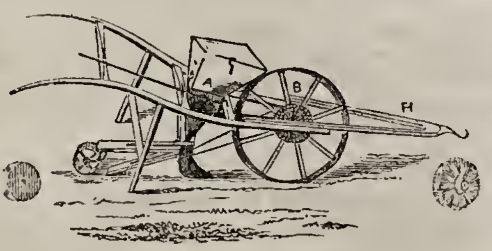
The proprietors have expended more time and money to improve, perfect and introduce agricultural machinery, than those of any similar establishment in this country, and with unequalled success—having first commenced the business in this city in 1846, after twelve years' previous practical experience in connection with the most extensive establishment in this country.

The Thresher and Cleaner is the most efficient one in use—warranted to thresh clean and fast as the best and not to waste any of the grain. Clover Mills, Feed Cutters, Sawing and other machines constantly on hand, and no exertions will be spared to meet the wishes of those dealing in and using the class of implements they manufacture. The public may rest assured the reputation heretofore earned for their machinery, &c., shall be fully sustained, by employing none but the best material and workmanship, and by a strict attention to business, they hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed.

LOCAL AGENTS, in all the principal Towns and Cities in this and other countries, where none are already established, are solicited, to whom, if well accredited, most liberal terms will be afforded for making this business a safe and profitable investment. All correspondence promptly attended to.

☞ Full Descriptive Illustrated Price Catalogues sent gratis on application.

April 24—w1tm1t



Emery's Corn Planter and Seed Drill.

THE above cut represents this planter. In using it the operator takes the handle as with a wheelbarrow, and walks off erect. The machine, making its own furrow, and counting and measuring its own quantity of seed, deposits it in hills or drills at pleasure, and at any distance apart, covering the seed after it is dropped, and compressing it after it is covered, by means of the roller, and doing the whole at one and the same time.

The speed of the cylinder or brush may be varied by placing the movable pinion (which is on the connecting shaft,) in any of the different rows of cogs on the main wheel, and there confining it by means of an iron pin. By referring to the cut, the planter will be readily understood.

It is equally adapted for being used by hand, or by a horse. Several hundred have been sold annually, and have given universal satisfaction. One acre per hour is readily planted, and may be called a fair estimate of their capabilities, with the rows three feet apart.

It is one of the most simple machines for the purposes designed that has ever been introduced. All small seeds are dropped by means of a revolving circular brush inside, which operates quite on the bottom of the hopper. By means of movable tin plates, with different sized holes in them, the seed is forced through the plates by the brush. All seeds, as carrot, parsnip, onion, turnip, &c., without regard to form or weight, are dropped with equal precision.

For planting corn, a wooden cylinder is used, just filling the hopper mouth. This cylinder is perforated with cavities to receive any required number of kernels of corn, beans, peas, &c., and a set screw is inserted. The quantity is regulated by turning the screw down or up. All the cavities of any part of them may be used at the same time, according to the distance desired to drop the seeds. With rows wider or narrower, more or less ground may be planted in the same time. Price $14 and warranted. A small, light Hand Drill Brush Seed Planter, operating same as above in principle, for drilling only. Price $6 and warranted.

So accurately have they worked, that on a good piece of ground of 20 acres, the machine was set to drop the desired quantity at the requisite distance, and a calculation made, and the quantity of seed for the whole field was measured; and when it was planted, a little over a quart of seed remained in the hopper. After the corn had come up, none had been missed; but any ten hills in one part would not vary in number with another part of the whole field

Also constantly on hand a full and complete assortment of the most approved Farming Implements and Machines. Also Grain, Field and Garden Seeds, all fresh and true to name and kind. The farming public will find their interest promoted by making an examination of qualities and prices at the above establishment before purchasing elsewhere.

SAMPLE AND SALES ROOMS, No. 52 State,
April 17—w&m1t Corner Green-st., Albany, N. Y.

Fruit, Shade and Ornamental Trees,

OF THE finest growth and choicest kinds, from Hon. Erastus Corning's Nursery, at the *Excelsior* Agricultural Store. RICHARD H. PEASE,
April 17—w1tm1t 369 & 371 Broadway, Albany.

North Devon and Ayrshire Cows,

THOROUGH-BRED, for sale by
ALFRED M. TREDWELL,
Union Agricultural Warehouse and Seed Store, No. 23 Fulton Street, New-York City, or Madison, Monroe County, New-Jersey. April 17—w4tm2t

100.000 POUNDS GUANO,

AND other fertilizers, and all kinds of FIELD and GARDEN SEEDS, at the Excelsior Agricultural Store.
RICHARD H. PEASE,
April 17—w1tm1t 369 & 371 Broadway, Albany.

FOR SALE.

THOROUGH-BRED AYRSHIRE COW, "Lucy Green," bred by Capt. Nye, from stock imported by him from Ayrshire. Address ALFRED M. TREDWELL,
April 10—w3t Madison, Morris Co., New-Jersey.

NOW IS THE TIME

TO buy SEEDS and SEED PLANTERS, Plows, Harrows, and all other implements; and the most important question any Farmer should ask after reading this, is, "Have I all the tools for my spring work?" If not, go or write to the Excelsior Agricultural Warehouse and Seed Store, 369 & 371 Broadway, Albany, N. Y., and buy them *cheap for cash.*
April 10—w1tm1t RICH'D H. PEASE, Proprietor.

Green Mountain Morgan Stallion.

FOR SALE.—The subscriber offers for sale his beautiful Green Mountain Stallion, from the celebrated old Green Mountain Morgan of Royalston, Mass. He is 6 years old,—weighs 1000 lbs—of a beautiful dark chestnut color—a fine figure, prompt action, and a superior roadster, combining in a marked degree all the characteristics of the celebrated Morgan stock. His colts stand *deservedly high*, and are among the best in this part of the country. To those wishing to improve their stock of horses by a mixture of a strain of the old Morgan blood, this opportunity offers a rare chance.
JAS. P. UPHAM,
May 1—m3t Claremont, N. H.

Farm Lands for Sale.

THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL OVER

Two Million of Acres of Farming Lands,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE lands were granted by the Government, to aid in the construction of this Railroad, and include some of the richest and most fertile Prairies in the State, interspersed here and there with magnificent groves of oak and other timber. The Road extends from Chicago, on the North-East, to Cairo at the South and from thence to Galena and Dunleith, in the North-west extreme of the State, and as all the lands lie within fifteen miles on each side of this Road, ready and cheap means are afforded by it for transporting the products of the lands to any of those points and from thence to Eastern and Southern markets. Moreover, the rapid growth of flourishing towns and villages along the line, and the great increase in population by immigration, etc., afford a substantial and growing home-demand for farm produce.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc.

Economy in cultivating and great productiveness are the well known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very *large profits.* A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to 2 50 per acre. By judicious management, the land may be plowed and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market.

Bituminous coal is mined at several points along the Road, and is a cheap and desirable fuel. It can be delivered at several points along the Road at $1.50 to $4.00 per ton; Wood can be had at the same rates per cord.

Those who think of settling in Iowa or Minnesota, should bear in mind, that lands there, of any value, along the water courses and for many miles inland, have been disposed of;—that for those located in the interior, there are no conveniences for transporting the produce to market, Railroads not having been introduced there. That to send the produce of these lands, one or two hundred miles by wagon to market, would cost much more than the expense of cultivating them; and hence, Government lands thus situated, at $1,25 per acre, are not so good investments as the land of this company at the prices fixed.

The same remarks hold good in relation to the lands in Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons, or interrupted water communications, increases the expenses of tranportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in cost of transportation, especially in view of the facilities furnished by this Road, and others with which it connects, the operations of which are not interrupted by the low water of summer, or the frost of winter.

PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for Deeds may be made during the year 1856, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract.

Interest will be charged at only 3 per cent. per an.

As a security to the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that at least one tenth of the land purchased shall yearly be brought under cultivation.

Twenty per cent. from the credit price will be deducted for cash. The company's construction bonds will be received as cash.

Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.

They will be 12 feet by 20 feet, divided into one living and three bed-rooms, and will cost complete set up on ground chosen anywhere along the Road, $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

Special arrangements with dealers can be made to supply those purchasing the Company's lands with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices.*

It is believed that the price, long credit, and low rate of interest, charged for these lands, will enable a man with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to JOHN WILSON,
Land Commissioner of the Illinois Central R. R. Co.
Office in the New *Stone Passenger Depot,* foot of South Water Street, Chicago, Ill. May 1—m6t

UNION AGRICULTURAL

WAREHOUSE AND SEED STORE,

No. 23 Fulton Street, (near Fulton Market,) New-York.

THE undersigned having succeeded to the business for the Manufacture and Sale of Agricultural Implements and Machinery, heretofore conducted by Messrs. Ralph & Co., at No. 23 Fulton-st., intends to continue the same in all its branches, and is prepared to furnish goods of the best style and quality at low prices.

Machinery, or any articles in the line, manufactured to order, according to pattern, at short notice.

His facilities for manufacturing enable him to offer to Dealers and Farmers the following leading articles at low figures:

Hand and Power Corn Shellers,
Fan Mills,
Plows, Harrows, Cultivators,
Revolving Hay Rakes,
Spring Tooth Hay Rakes, (the best rake in use,)
Cast Iron Corn Mills for Hand or Power,
Road Scrapers, Wheel Barrows,
Field and Garden Rollers,
Corn and Cotton Planters,
Post or Ground Augurs,
Hay, Straw and Stalk Cutters,
Wagons and Carts,
Vegetable or Root Cutters,
Sausage Cutters and Stuffers.

In connection with extensive farming operations, I have for some years past given much attention to the raising of thorough-bred SHORTHORN, NORTH DEVON and AYRSHIRE CATTLE, and other fine stock, and now offer the advantage of my knowledge and experience to persons desiring to purchase.

A. M. TREDWELL

March 27—w5t&eow4t—m3t

Felton's Self-Sharpening

PORTABLE GRIST-MILL.

FOR GRINDING ALL KINDS OF GRAIN, including Corn and Cob, and adapted to the use of Farmers by HORSE POWER. These Mills are manufactured by the

TROY PORTABLE GRAIN MILL CO. AT TROY, N.Y.

Who are now the owners of the Patent Right.

This is one of the most valuable inventions of the day. Possessing all the qualifications requisite to make it available to the Farmer, it is destined to supply a want that has long been felt by that portion of the community. It occupies a space of only two feet by three, and weighs about 300 lbs. It is very simple in construction,—the grinding surfaces are of the most durable character and are *Self-Sharpening*, requiring no skill to keep in order, and should they ever wear out, can be replaced at a trifling cost—and the price comes within the reach of every Farmer.

It is adapted to Steam, Water, Wind, or Horse Power, and is capable of grinding three bushels per hour, with one horse power, and from six to eight bushels with two horse power. It grinds sufficiently fine for family use. and does not *heat* the meal—a most valuable feature The perfecting of this Mill, is the result of a long series of experiments which have been attended with great expense, but the success of the enterprise is most complete. We have also a Mill of larger size, intended for Water or Steam Power, which is capable of grinding from 15 to 25 bushels per hour, with from 6 to 8 horse power.

All Orders, Communications. and applications for Rights, addressed to the TROY PORTABLE GRAIN MILL Co., will be promptly attended to. ☞ A rare chance is here offered for competent and responsible men to engage in the sale of these Mills.

The above Mills may be seen in operation at the Office of the Company, on 2d Street, below Adams. Apr. 10—w1am4t

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To Long-Island, Jersey and N. Y. Farmers.

THE subscribers, having the exclusive right to all the night-soil emptied from the sinks and privies of New-York City, for five years—and there being more than they wish to use themselves, they are prepared to furnish to Farmers at their landings up any river, creek. or bay, where vessels can come, the *crude night-soil*, just as received from the scavengers, and empty it into carts, or furnished tight tubs, in which it can be carried on to the land—for from 10 to 18 cts. *per bushel*, according to distance and circumstances, or persons sending their own vessels will be loaded at the company's wharves.

Now is the time to get a manure more powerful, more forcing, and cheaper than any in the known world. Cargoes will vary from 1000 to 8000 bushels, according to quantities desired. Apply to

THE LODI MANUFACTURING CO.,
Jan. 17—weow4tm4t 60 Courtlandt-st., New-York.

ALBANY SEED STORE.

ESTABLISHED IN 1831.

THE subscriber now offers at wholesale and retail his usual extensive assortment of genuine GARDEN and FIELD SEEDS, growth of 1855, comprising in part the following desirable articles. viz:

King Philip or Improved Brown Corn—price 25 cts. per qt.
White Russian Flax—(a new and desirable acquisition,)—price 25 cts. per quart.
Long-Island Flax.
Garden and Field Peas of all sorts.
Garden and Field Beans of all sorts.
Indian Corn in great variety for the Garden and Field.
Millet Seed—$3 per bushel—Broom Corn.
Hemp—Rape or Cole Seed.
Lucerne or French Clover—White Dutch Clover.
Red Clover and Timothy—Red-Top or Herd's Grass.
Orchard Grass, and Mixed Grass Seeds for Lawns.
English Rye Grass, Spring Vetches or Tares.
English White Mustard, Sunflower.
Improved Ruta Baga Turnip.
Large White English Norfolk Turnip.
Yellow Aberdeen & White & Red top Strap-leaf Turnip.
Red Top and White Flat Turnip.
Large White Field and Long Orange Carrot.
Long Red and Yellow Globe Mangel Wurtzel.
White French and Yellow German Sugar Beet.
Honey Locust, Buckthorn and Osage Orange for Live Fences.
Yellow Locust for Locust posts.
New Orange Watermelon—25 cents per package.
Christina Muskmelon (true.)—50 cts. per ounce.
With a large assortment of choice Flower Seeds and spring planting Bulbs, &c., &c., &c.

For full particulars reference is made to my Annual Catalogue of Garden, Field and Flower Seeds, just published for 1856, which will be mailed to any address on application.

WILLIAM THORBURN,
Seedsman and Florist,
March 13—w&m3m 492 Broadway, Albany, N. Y.

Union Agricult'l Warehouse & Seed Store,

23 Fulton-street, (near Fulton Market,) New-York.

PLOWS—a large and choice selection of the best patterns now in use, comprising a variety of forty different patterns and sizes, adapted to the various soils.

HARROWS—Square, Triangular, and Hinged.

SEED DRILLS for sowing all kinds of Garden or Field Seed in drills, to be used by hand or horse.

ROLLERS—Field and Garden sizes.

GARDEN ENGINES, Wheel-Barrows, &c.

Together with an extensive assortment of HORTICULTURAL IMPLEMENTS.

FIELD and GARDEN SEEDS, for sale by

April 3—w5tm2t A. M. TREDWELL.

AGRICULTURAL IMPLEMENTS,

WHOLESALE and retail—FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse.*

GRIFFING, BROTHER & CO.
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

To Farmers and Gardeners.

YOUR attention is called to the Manures manufactured by the Lodi Manufacturing Co. from the contents of the sinks and Privies of New-York City, and free from offensive odor, called

POUDRETTE AND TAFEU.

Poudrette is composed of two-thirds night soil and one-third decomposed vegetable fibre. Tafeu is composed of three-fourths night soil and one fourth No. 1 Peruvian Guano.

These manures are cheaper and better adapted for raising Corn, Garden Vegetables and Grass, than any other in market. Can be put in contact with the seed without injury, and cause Corn and seeds to come up sooner, ripen two weeks earlier, and yield one-third more than other manures, and is a *sure preventive of the Cut Worm.*

Two bbls. Poudrette or 100 lbs. Tafeu, will manure an acre of Corn in the hill. Tafeu $1\frac{3}{4}$ cents per lb. Poudrette $2 00 per bbl., or $1.50 for any quantity over 7 bbls., delivered on board vessel or Railroad, free from any charge for package or cartage. A pamphlet, containing every information, sent, postpaid, to any one sending their address to

THE LODI MANUFACTURING CO.,
Jan. 17—w&m4m 60 Courtlandt-st., New-York.

FOR SALE,

DEVON BULL HOLKHAM, 4 yrs. old, (216) Price $200
Do. FORDHAM, 1 year old, do. 150
Durham Bull "LOCOFOCO," 2 year old, do. 150
All thorough-bred, Herd-Book animals. Address
THOS. GOULD,
April 17—w2tm1t* Aurora, Cayuga Co., N. Y.

STRAWBERRY POTATO,

RAISED by B. L. Swan, Esq., on Long-Island—a few barrels for sale in lots to suit—price per bushel,.....$4
half " 2
quarter " 1
For sale by A. LONGETT, 34 Cliff-st., corner of Fulton, New-York. April 17—w3tm1t

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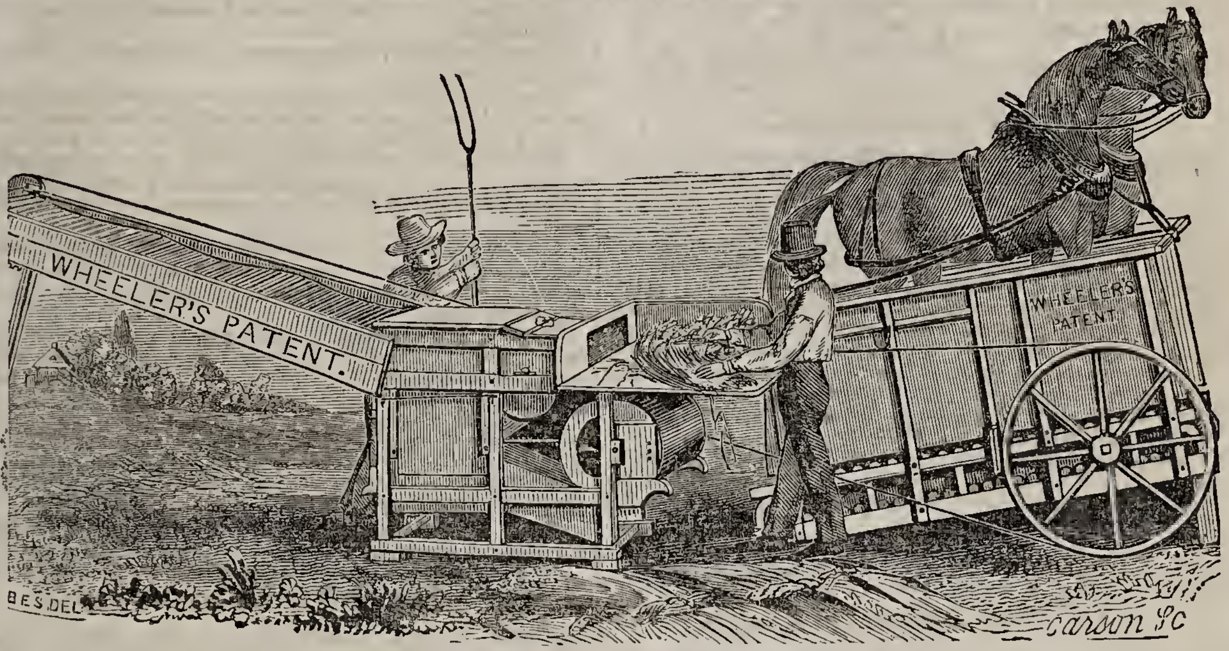
NEW-YORK STATE

AGRICULTURAL WORKS,

BY

WHEELER, MELICK & CO.



Double Power and Combined Thresher and Winnower in operation.

WE ARE Manufacturers of Endless Chain Railway Horse Powers, and Farmers' and Planters' Machinery for Horse Power use, and are owners of the Patents on, and principal makers of the following valuable Machines:

Wheeler's Patent Single Horse Power,

AND

OVERSHOT THRESHER WITH VIBRATING SEPARATOR.

This is a One Horse Machine, adapted to the wants of medium and small grain growers. It separates grain and chaff from the straw, and threshes about 100 bushels of wheat or twice as many oats per day, without changing horses—by a change nearly double the quantity may be threshed.—Price $128.

Wheeler's Patent Double Horse Power,

AND

OVERSHOT THRESHER WITH VIBRATING SEPARATOR,

This Machine is like the preceding, but larger, and for two horses. It does double the work of the Single Machines, and is adapted to the wants of large and medium grain growers, and persons who make a business of threshing. Price $160.

Wheeler's Patent Double Horse Power,

AND

COMBINED THRESHER AND WINNOWER,

(SHOWN IN THE CUT.)

This is also a Two Horse Machine; it threshes, separates the grain from the straw, and winnows it at one operation, at the average rate of 150 bushels of wheat and 300 bushels of oats per day. In out door work, and for persons who make a business of threshing, it is an unequalled Machine. Price $245.

ALSO CLOVER HULLERS, FEED CUTTERS AND SAWING MACHINES.

Our Horse Powers are adapted in all respects to driving every kind of Agricultural and other Machines, that admit of being driven by Horse Power, and our Threshers may be driven by any of the ordinary kinds of Horse Powers in use—either are sold separately.

☞ To persons wishing more information and applying by mail, we will forward a circular, containing such details as purchasers mostly want—and can refer to gentlemen having our machines, in every State and Territory.

Our firm have been engaged in manufacturing this class of Agricultural Machinery, 22 years, and have had longer, larger, and more extended and successful experience than any other House.

All our Machines are warranted to give entire satisfaction or may be returned at the expiration of a reasonable time for trial.

☞ Orders from any part of the United States and Territories, or Canada, accompanied with satisfactory references, will be filled with promptness and fidelity. And machines securely packed, will be forwarded according to instructions, or by cheapest and best routes.

WHEELER, MELICK & CO.,
Albany, N. Y.

April 17—w&m1t

OUR CATALOGUE

OF AGRICULTURAL BOOKS, comprising seventy-five different books on Agriculture, will be sent postage free to all who will favor us with their name and address.

Among the books recently published by us are:

CHORLTON'S GRAPE-GROWER'S GUIDE. 60c.
REEMELIN'S VINEDRESSER'S MANUAL. 50c.
CRANBERRY CULTURE. 50c.
STRAWBERRY CULTURE. 60c.
ELLIOT'S AMERICAN FRUIT GROWER'S GUIDE. $1.25.
THE STABLE BOOK. $1.
BOUSSINGAULT'S RURAL ECONOMY. $1.25.
THOMPSON ON FOOD OF ANIMALS. 75c.
PRACTICAL LAND-DRAINER. 50c.

For sale by all Booksellers, or sent by us free of postage on receipt of price.

C. M. SAXTON & CO.,
Agricultural Book Publishers,
140 Fulton-st., N. Y.

March 27—w1tm1t

SALAERATUS.

THE subscribers offer to the trade Salaeratus of differen grades of strength, which they claim to be superior in quality to any other in market, and entirely free from any deleterious ingredients.

We are the only Manufacturers whose process of manufacture is conducted under the immediate superintendence of an experienced practical chemist. Having been engaged for several years in the manufacture of our peculiar kind of Salaeratus, and being the originator of those manufactured, we can offer to consumers a guarantee of its great excellence, which no other manufacturer can do; the new kinds of Salaeratus pompously set forth, under various names, in different advertisements, being merely imitations of the article we originally introduced to the public.

We warrant the quality of all goods sold by us, and agree to return the purchase money, together with expenses of transportation, on every article that proves to be inferior to our representation of its quality.

JOHN DWIGHT & CO.,
No. 112 Pearl-st., New-York,

Feb. 21—m3t*

ATKINS' AUTOMATON:

OR,

SELF-RAKING REAPER AND MOWER.

BEST MACHINE IN USE.

1 (the first) used in 1852.
40 used successfully in 1853.
300 in twenty different States in 1854.
1200 in all parts of the Union in 1855.
3000 building for the harvest of 1856.

THERE ARE SIX GOOD REASONS FOR THIS unparalleled increase and great popularity: 1st. It is strong and reliable, and easily managed. 2d. It saves the hard labor of raking. 3d. It saves at least another hand in binding. 4th. It saves shattering by the careful handling in raking; besides the straw being laid straight, it is well secured in the sheaf, and does not drop in the after handling, and the heads are not exposed in the stack, so that the GRAIN saving even exceeds the LABOR saving. 5th. It is a good Mower, being one of the best convertible machines in use. 6th. It has a knife that does not choke.

Its other excellencies, too numerous to mention here, are fairly given in the circulars. Its intrinsic worth is also attested by the award (mostly in only 3 years) of

OVER 70 FIRST PREMIUMS!

PRICE.—REAPER AND MOWER, $200.—$75 on its receipt, $75 first September, and $50 first December. Price of SELF-RAKING REAPER only $175. Considerable saving in freight to those at a distance who order prior to 1st March; also liberal discounts for advance payment.

To procure a machine, order immediately. Though so little known the past season, and none ready for delivery till 1st of May, yet not two-thirds of the customers could be supplied. The reputation of the Machine is now widely established, so that THREE THOUSAND will not as nearly supply the demand as twelve hundred did last year, and we shall also be selling four months earlier.

☞ Order early, if you would not be disappointed.

PAMPHLETS giving IMPARTIALLY the OPINIONS OF FARMERS, together with orders, notes, &c., mailed to applicants, and prepaid.

☞ Write to us at CHICAGO, (Ill.,) DAYTON, (Ohio,) or BALTIMORE, (Md.,) which ever is nearest you.

J. S. WRIGHT & CO.
"Prairie Farmer" Works, Chicago, March 6—w4tm4t

UNITED STATES AGRICULTURAL Warehouse and Seed Store.

MAYHER & CO., Nos. 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,
FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz:—

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle **D** and **F** Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers.

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf

---

SPECKLED DORKINGS

AND Fancy Lop-Eared Rabbits, carefully boxed and delivered at the Express Office, Utica, at $5 each. For sale by

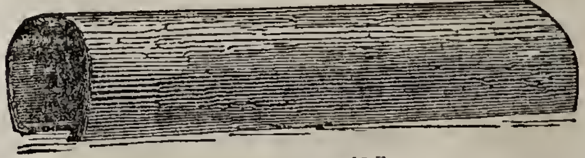
R. H. VAN RENSSELAER,
Morris, Otsego Co., N. Y.

Feb. 27—w3tm3t

ALBANY TILE WORKS,

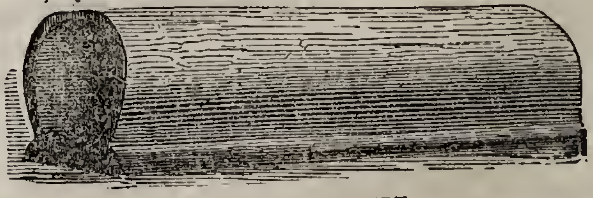
Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned, and over one foot in length. On orders for 10,000 or more, a small discount will be made.



HORSE SHOE TILE.

4½ inch calibre, $18 per 1000; 3½ inch calibre, $15 per 1000; 2½ inch calibre, $12 per 1000.



SOLE TILE, OR PIPE.

3 inch calibre, ...$18 per 1000.
2 inch calibre,........................ 12 per 1000.

Also on hand 8 inch Horse Shoe Tile for large drains, $8 per 100—5½ inch, $40 per 1000. Sole Tile, 4 inch calibre, for sink drains, $40 per 1000—6 inch calibre Octagon Pipe, $20 per 100—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
late BABCOCK & VAN VECHTEN,
Albany, N. Y.

Feb. 21—w&m3ms.

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No 12 BROADWAY, NEW-YORK.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Thresher, and Winnowers, and other Agricultural Machines.

May 24—m12t*

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
New-York.

Oct. 11—mtf

FISH GUANO.

THE Narragansett Manufacturing Co. of Providence, R. I., are prepared to execute orders for their Fish Guano. They have prepared their guano after two methods; one by chemically treating, cooking and then drying and grinding the Fish to a powder. This is put in bags and sold at $45 per ton. For the other variety the fish are prepared as above, (with the exception of drying and grinding;) and are then combined with an absorbent which is in itself a valuable fertilizer; and sold at $2 per barrel, containing about 200 lbs. This compost is of great strength, and must be a very efficient fertilizer, as it is composed in great part of simple flesh and bones of fish.

Dr. Charles T. Jackson, of Boston, has made an analysis of the Powder, and says:

"It is similar to Peruvian Guano in composition, with the exception that the ammonial matter is dried flesh of fish, and not putrified, so as to be ammoniacal. It will, however, produce ammonia by decomposition in the soil. One hundred grains of this manure, dried and finely pulverized, was submitted to analysis, with the following result:

ANALYSIS.

Ammonial matter, (flesh of fish,)........	48-00
Phosphate of Lime,.....................	33-90
Carbonate of Lime,.....................	7-60
Sulphate of Lime,......................	6-40
Potash and Soda,.......................	4-10
	100-00

Respectfully your obedient Servant,
CHARLES T. JACKSON,
Assayer to the State of Massachusetts,"
Boston, July 21st, 1855.

Dr. Jackson's opinion of our Guano is expressed in the following Note:

BOSTON, March 9th, 1855.

S. B. HALLIDAY, Esq.—Dear sir:—In reply to your letter, I would state my entire confidence in the superiority of a properly prepared artificial guano, made from fishes, over that of the natural guano of birds, obtained from the coast of Peru.

It is obvious that more of the nitrogenous, or ammonia producing substances, exist in fish prepared after your method, than are found in any guano, and hence the artificial preparation will go further in the fertilization of a soil.

The ammoniacal salts act chiefly in bringing the foliage into a healthy and luxuriant condition, and thus causes the plant to absorb more of the phosphate and other necessary salts and substances from the soil, and more carbonic acid from the air. The carbonate of ammonia also, is a solvent for humus, and it quickly saturates any injurious acid salts that may exist in the soil, and forms from some of them valuable fertilizers.

Respectfully, your obedient servant,
C. T. JACKSON, M. D., State Assayer, &c.

This Manure is offered to agriculturists with the assurance of its becoming one of the most popular to be obtained. The Company are ready to establish agencies at such points as are desirable for the convenience of Farmers. As the supply for this season is rather limited, the Company esteem it a favor to have orders forwarded early to enable them to lay down at their agencies the requisite quantities in proper time for use,—orders may be addressed to the Company at Providence, or to R. H. PEASE, Albany, N. Y. or R. L. ALLEN, New-York.

S. B. HALLIDAY, Agt.
22 West Water St., Providence, R. I.

Jan. 21—w6t—m6m.

EXCELSIOR HORSE POWER
and Threshing Machines.

BY an experience of several years, this Portable Lever Four Horse Power and Spike Thresher, has proven to be the best and cheapest yet known. None have ever failed to give satisfaction in all respects. Its operation is easily understood, and can be used with one to four horses. It can be moved from place to place with ease, and can thresh out 50 to 75 bushels of wheat in an hour.

Price of Power, No. 1 Thresher, Band and Irons,...$130.00
Price of Do. No. 2, Do. Do. Do. .. 125.00

Orders will be duly attended to.

Terms cash on delivery in this city.

PLANT BROTHERS,
General Commission Merchants,
75 Pine-st., New-York.

Feb. 28—w1tm2t

FOR SALE,

A VERY VALUABLE FARM.—The subscriber having determined to retire from business, offers his Farm for sale, containing about nine hundred acres of land, lying in Fairfax county, Virginia, about *ten* miles from Alexandria, Georgetown and Washington, which afford the best markets in the United States for the ordinary products of the farm.

The buildings are all comfortable; and the most of them have been erected within a few years. The *dwelling* is of *brick* with a frame addition containing *eleven* (11) *rooms*—the other buildings consist of *houses* for *laborers* with their families—a large *barn* and *stables*—*granary*—*carriage* and *wagon houses*—large *stone dairy*—*stone ice and meat houses*—a *large house* for *apples* and *cider* making, with *extensive cellars* for storing cider, and vinegar—and other necessary out-houses.

There are about 1000 *peach trees* of choice varieties; and 1500 or more *apple trees*, all in fine bearing condition; from which the subscriber realized last season between four and five thousand dollars, which amount might easily have been *increased to double by an efficient salesman.*

Large crops of *corn*, *wheat*, *oats*, *hay*, &c. are annually produced, for which the soil and climate are admirably adapted. The *meadows* are very *extensive;* and have yielded, without failure, heavy crops of hay for 40 years, without ever having been manured. The soil is easily improved; and is more retentive of improvement than any land within an equal distance of Washington.

It lies between two Railroads, one and a half miles distant from each. These roads, which will soon be completed, run through a lime-stone region 25 to 30 miles distant, and will be able to furnish it in any required quantity. The proprietor, 12 years ago, applied to a field 30 bushels of lime to the acre, with remarkable effect in increasing the crops, which effect still continues.

A large part of this land is in wood—much of it being heavy primitive *Oak-timber* suitable for ship building.

It is *abundantly* supplied with the *purest water*. In point of *healthfulness*, it *cannot* be *surpassed*. The subscriber's family, never numbering less than 25 persons, have not cost for medical services more than an average of $10 per annum, for the last *twenty years*

The wood-land is so distributed that the estate can be divided into several parts.

There are Methodist, Presbyterian, Episcopalian and Baptist churches in the neighborhood.

It is offered at thirty-five dollars per acre, which is not half its value—the orchards and meadows alone, being worth the amount demanded for the whole estate.

Its proximity to Washington, the permanent seat of the General *Government*, which is growing very rapidly in wealth and population, must, with its other advantages, increase its value annually.

Persons wishing to purchase will make application to

WM. Y. DULIN,
near Falls Church,
Fairfax county, Virginia

March 1—mtf.

Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.

Dec. 27—w&mtf

Agricultural Books,

For sale at the office of the Country Gentleman

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Steven's Broadcast Sower, 153

Thorough-bred Devonshire Stock.

FOR SALE—One Devon Bull.—"Prince Albert," 3 years old—one Devon Bull, "Reubens 1st," a superior animal, took premium at State Fair—sired by imported bull Rubens in the English Herd Book, 18 months—one Devon Bull, "Reubens 2d," sired by the same, 10 months—one Devon Bull, "Victor," sired by Prince Albert, 10 months—one Devon Cow, 10 years old—due 25th May—one Devon heifer, 2 years old.

The above may be relied upon to be of pure blood, and well bred.

Also—one very fine grade cow, 7 years old, due 1st of June. One do. 6 years, due middle of April.

150 barrels MERCER and CARTER POTATOES, of excellent quality—Stone Turnips, fine for the table.

FRANCIS W. COWLES,
Farmington, Conn.

April 3—w3tm1t

PERUVIAN GUANO,

OF THE best quality, with government weight and brand on each bag.

MEXICAN GUANO.

SUPERPHOSPHATE OF LIME.

BONE DUST.

TA-FEU, POUDRETTE, and other FERTILISERS.

AGRICULTURAL and HORTICULTURAL IMPLEMENTS.

FIELD AND GARDEN SEEDS—A very large assortment.

R. L. ALLEN,
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April 10—w6tm2t

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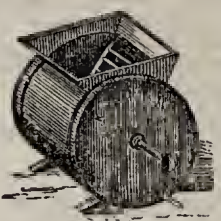
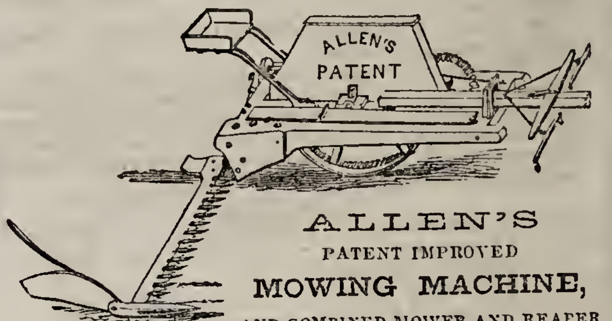


THE churn may be filled more or less to suit those using it, but generally about two-thirds full is best. In churning, care should be taken not to turn too fast, as it only delays the coming of the butter, and is harder for the person using it. In case this is filled more than half full, the milk should be drawn off at the bottom so as to bring the whole below the shaft before it is withdrawn to take out the butter. The prices are as follows:

No. 1,	for 1 to 2 cows,	$2.00
No. 2,	2 to 5 "	2.25
No. 3,	5 to 8 "	2.50
No. 4,	8 to 15 "	3 25
No. 5,	15 to 25 "	4.00

Being so compact in shape, they are cheaply, easily and safely transported to any part of this or other countries. For sale by EMERY BROTHERS, Albany.



ALLEN'S
PATENT IMPROVED
MOWING MACHINE,
AND COMBINED MOWER AND REAPER

STRONG, Simple in construction, not liable to get out of order, Compact, Light, Easy of Draft, and may be worked with a slow gait by Horses or Oxen. No Clogging of Knives. Works well on any ground, however rough—side hills—salt and fresh meadows, &c.—and in any kind of lodged grass and clover.

WARRANTED TO GIVE ENTIRE SATISFACTION.

Manufactured at the Agricultural Implement Manufactory, and for sale at the Warehouse of R. L. ALLEN, 189 & 191 Water street, New-York. April 10—w6m2t

RURAL PUBLICATIONS.

The Country Gentleman—The Cultivator, and the Illustrated Annual Register of Rural Affairs—*Published at Albany, N. Y., by* Luther Tucker & Son.

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THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. IV. ALBANY, JUNE, 1856. No. VI.

Draining—Results of Experience.

A meeting of the principal English agriculturists, who have distinguished themselves in improved farming, was held in London during the past winter, which was confined in its discussions wholly to the subject of underdraining, and, as might have been expected, a great deal of valuable information was elicited.* The experience of British farmers with draining has been great; and the conclusions they have arrived at on some disputed points, cannot fail to prove interesting. But we find the same defect in their statements, that characterize nearly all the details of experiments made in this country; namely, a want of accurate estimates or measured results. Their conclusions are given generally, without any data by which we know the amount or degree of benefit or injury occasioned. "*I think so*," or "*I know so*," is not a very scientific rationale, nor very clear mathematical calculation.

DEPTH OF DRAINING.

An important point, on which nearly every one present agreed, was that deep drainage,—not less than four feet,—was invariably the best. Among other statements on this part of the subject, we observe that of T. Scott, who had had for fifteen years constant connexion with extensive works for drainage. In 1838, he superintended 140 miles, which were dug 27 to 30 inches deep. The bottom was laid with sole tile, or with 12 inches of stone broken so as to pass through a 2½ inch ring. "The effect of the drainage was wonderful, and repaying at the time;" but, as proved to be the case with many other shallow drains, these seemed to lose in part their efficiency after several years; but having learned the superior advantages of deep drainage, measures were taken ten years afterwards to take these all up and replace them with four feet drains. The objection that surface water would not find its way down to such a deep channel, had not been found to exist in practice, which indeed appears very obvious when it is remembered that water will descend through soil four feet much easier than horizontally 12 or 15 feet, which it must do to effect thorough drainage of the land.

Deep drains were found to commence running sooner than shallow ones, and to continue running longer —showing their greater efficiency; doubtless owing to the fact that the subsoil must be first filled by the falling rain, up to the bottom of the shallow ditch, before the flow of water can begin; and it must again cease when the surplus water in the subsoil is reduced down to this level.

Only one member of the meeting advocated as shallow a drainage as three feet—which he did on the ground of saving expense, the last foot of a four-feet ditch often costing as much to excavate as the three previous feet.

It was claimed by some members, that soluble manure would be carried down and flow off in shallow drains, while the water will run clear from those of greater depth. This reasoning does not appear to possess much weight, for if the channels are two rods apart, all the surplus water of the soil would be only *one-sixteenth* nearer to the three-feet drain than to the four feet—a difference of small amount, and affecting very little the results in practice.

It would have greatly assisted our enterprising farmers in America in determining the proper depth, if we had been furnished in this report with precise statements of the actual difference in results,—given in figures from careful measurements,—showing the increased cost per acre of the various increased depths, together with the greater amount of growth in crops. As the statements now stand, there is nothing more than a mere expression of *opinion*, founded on extensive observation. A five-feet ditch may be best; but what we want to know is, whether its increased cost will *pay*.

IMPORTANCE OF LEVELLING-INSTRUMENTS.

Where there is a steep descent, little difficulty is commonly felt; yet a *uniform* descent would admit of smaller tile, and prevent those lodging places for sediment, which has been sometimes found to cause the entire obstruction of the channel. Where the land is nearly level, an instrument for determining the descent, in the first place; and for its uniform slope in the second, is absolutely indispensable. Col. Challoner mentions instances where, without this careful attention to the fall, three-fourths of its entire amount had been taken up before the drain had been cut half its length, thus leaving the remainder almost a dead level and nearly useless. He recommended an accurately-made common bricklayer's level, whose length divided into the entire length of the drain, would give the descent for each length, and perfect uniformity be thus maintained in every part.

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* Reported in the *Mark Lane Express* (London,) in 26 closely printed, large columns.

COST OF DRAINING.

It appears from the various remarks made by the speakers, that *brush-draining*, had been regularly and efficiently performed for 30 to 40 shillings per acre, or eight or ten dollars of our money. These continued to answer the purpose for twelve or fourteen years. The drains appear to have been made much shallower than the four or five feet tile drains, which have cost about five to seven pounds or twenty-five to thirty-five dollars per acre, and which is about the same as the cost of draining in this country only two and a half or three feet deep. The difference in cost, in the two countries, is atrributable to the difference in the price of labor and cost of tile. We entertain hopes, however, that by the use of Pratt's ditching machine, we may be able to drain land three feet deep, and lay it with tile, for $20 per acre, of which the tile will be one-half. The price of tile now, is much higher than in England, but it will unquestionably become cheaper when there are greater facilities for its manufacture, but more especially a larger market for it than at present.

DURABILITY OF DRAINS.

The opinion was expressed that deep, well made drains, would last at least fifty years. If they would last fifty, we cannot see why they would not last a hundred and fifty. The only thing in the way of their continued durability appears to be sediment accumulating in the tile and choking it, or the settling of the earth about their exterior and filtering into their crevices, and thus shutting up the access to them from without. In clay soils, there appears to be little liability to internal choking. In those of a sandy and gravelly nature, the danger is greater, and is to be prevented, (in addition to the uniformity of descent already mentioned,) by using collars at the junction of the pipes, by surrounding the pipes with gravel or broken stone, to be covered with flat stone, hard-wood slabs, or brush, or using brush alone in contact with the tile. In quick-sand, all these remedies may need to be combined. The same remedies will of course prevent external clogging. This difficulty was found to be much greater in shallow than in deep drains. Fifteen years ago, two feet was regarded as deep, many drains being less, but they soon lost their efficiency.

ADVANTAGEOUS RESULTS.

G. **Donaldson** mentioned a piece of land in Clydesdale, drained in 1821—2. The land was previously so wet and boggy that it was unfit for cultivation. It was drained from three to five feet deep, and the third year afterwards it produced a crop of wheat of six quarters (48 bushels,) to the acre, and 64 lbs. weight per Winchester bushel, and had ever since been in profitable cultivation. Another instance,—300 acres in Lancashire,—never before cultivated, producing only coarse grass and heath; after thorough underdraining, was plowed and produced a crop of oats which sold at public auction for 9 pounds (45 dollars,) per acre, and the land was let for the next year for £11 ($55) per acre. In another instance, mentioned in a letter from W. **Hulton**, of Lincolnshire, land which "four horses had found a difficulty in plowing, is now producing excellent crops of wheat, worth almost the fee-simple of the land in an improved state." In another case, mentioned by J. B. **Denton**, the Speaker of the House of Commons (his name not given,) had several farms to drain, occupied by tenants much prejudiced against deep draining. A single farm was therefore drained four feet deep. "When this was done, the tenants one and all, begged that their *wet* lands might be drained—they selecting the *wetest* portions. On the completion of this second job, the same tenants, with greater earnestness, begged now to have the same lands drained that they had withheld as *dry*,—because they found by comparison with the drained land, that the excepted dry land was *insufferably wet*."

The following calculation shows the great importance of deep draining, and after it, of deep tillage,—viz. that every *inch* of additional depth of drainage, drains and render porous for cultivation and the penetration of the roots of crops, *one hundred tons* of soil per acre. The following interesting and striking facts show

THE DEPTH THAT ROOTS WILL PENETRATE.

J. B. **Denton** (who is high authority) says, "I have evidence now before me that the roots of the wheat plant, the mangold wurzel, the cabbage, and the white turnip, frequently descend into the soil to a depth of three feet. I have myself traced the roots of wheat nine feet deep. I have discovered the roots of perennial grasses in drains four feet deep; and I may refer to Mr. Mercer, of Newton, in Lancashire, who has traced the roots of rye-grass running for many feet along a small pipe-drain, after descending four feet through the soil. Mr. Hetley, of Orton, assures me that he discovered the roots of mangolds in a recently made drain five feet deep; and the late Sir John Conroy had many newly made drains four feet deep stopped by the roots of the same plant."

THE DISTANCE OF THE DRAINS ASUNDER.

Most of the speakers thought that this distance should not be less than 30 feet, and on the whole recommended 25 to 30 feet. Some of them seemed to think there was a definite and distinct distance to be observed, for the remark was made that "a single yard too near may be a pound per acre thrown away, while a yard too wide may occasion dissatisfaction for ever." We cannot see how so distinct a line can be drawn. The soil nearest the drain is of course made dry first, and then that more remote, in gradual succession; and the greater the distance the longer the land would require to become properly drained. There is a certain medium, pointed out by observation and expediency, which a view to economy may make a greater distance, where labor is costly and land and crops cheap, than otherwise; although the saving of labor in tillage by underdraining, should not be forgotten in the estimate. The quantity of rain that falls, and which rains in different places, may have an important influence on the number of drains to carry it off speedily.

THE KEYTHORPE SYSTEM.

This is a system of drainage, extensively practiced by Lord **Berners** (who had previously expended several thousand pounds in shallow drainage, in the common or *gridiron* arrangement of the drains.) In the Keythorpe system, the arrangement of the drains is entirely irregular, and dependant solely on the natural seams and strata in the soil—and is of course only applicable to such soils as have these seams and strata—and which are perhaps more common than many suppose. In some places, a single drain, properly located, will affect complete drainage of a large piece f land; in others, numerous parallel or branching drains may be requisite. To ascertain this very important point, *trial holes* are dug at regular intervals all over the piece of land to be operated on; the rapidity with which they fill, and the quantity they contain, will afford a guide for the commencement of operations. A ditch is cut in such places as appear best; and then its effects are observed on the trial holes. Those which are soon laid dry by this means, show that no more drains are needed there, even if at some distance. While those that continue filled with water indicate that further drains are required, the position of which must be governed by observation and circumstances.

The chief recommendation of this system is its *cheap-*

ness. The drains being cut only where they are actually wanted for use, a great saving of labor is effected, the cost by this mode sometimes being not more than one half that of the regular or gridiron system. Several gentlemen who had visited Lord Berners' lands after a long and heavy rain, affirmed that the drainage was effected by this system in the most complete and thorough manner.

We have no doubt that in many portions of the country, the adoption of the plan of digging trial holes *at regular distances* over the whole field to be drained, would afford much valuable knowledge on the requirements of the land, and on the position of drains; and that on much land now supposed to be quite dry and to need no labor of the kind, the water would be found to stand a long time in the holes, showing the amount of stagnant water in the subsoil.

POSITION OF DRAINS.

The general voice of the members of this meeting was in favor of running drains down hill by the shortest or steepest course. If the drain descends *obliquely*, and if water will leach into it from above, it may also leach out again on the lower side; but once in the directly descending drain, it cannot flow out again, but takes the shortest cut down the hill, in the bottom of the ditch. In the Keythorpe system, however, exceptions are made to this rule, wherever the nature of the stratified earth seems to demand it.

Should Ashes be Mixed with Superphosphate of Lime?

In the Country Gentleman of Feb. 7, we stated that *unleached wood ashes* should not be mixed with superphosphate of Lime. A correspondent of the *Maine Farmer*, cites a process for manufacturing superphosphate of lime given by Mr. Alexander J. Main, in the *Transactions of the Highland and Agricultural Society of Scotland*, in which he recommends "house ashes" for mixing with the superphosphate of lime; and as this is in his opinion diametrically opposed to our statement, he asks "Who is right?"

Our inquiring friend might have cited even higher authority for the use of ashes with superphosphate than Mr. Main. The lamented Prof. John P. Norton, Prof. Emmons, and many other American writers recommend farmers manufacturing superphosphate of lime from bones, to dry the mixture by the addition of ashes.

These writers evidently recommended the practice of British farmers without due consideration. It is true that in England "house ashes" are mixed with home-made superphosphate of lime in order to render it dry enough to be sown with the drill—and the practice is a good one. But "house ashes" are a very different article from the "unleached wood ashes" referred to by us. The "house ashes" of the English, are *coal ashes*, and have no injurious action when mixed with guano, superphosphate, &c. Unleached wood ashes have a strong alkaline reaction, and will, as we before stated, *most unquestionably* "set free the ammonia from its acid combinations," in these and all other manures. Any one can readily satisfy himself on this point by mixing a little Peruvian guano with unleached wood ashes and adding a little water. He will soon produce a strong smell of ammonia (hartshorn) and this simple experiment will do more to convince him of the truth of our assertion than the most elaborate argument. We hope the correspondent of the *Maine Farmer* will satisfy himself on this point.

That "unleached wood ashes" when mixed with superphosphate of lime has an injurious effect cannot for one moment be doubted by any one having any knowledge of chemical action. The object of mixing sulphuric acid with bones, or as it is erroneously called "dissolving" bones with sulphuric acid, is to convert the insoluble phosphate of lime as it exists in bones into the soluble superphosphate of lime. The sulphuric acid accomplishes this by taking away a portion of the lime, leaving an excess of phosphoric acid. Superphosphate of lime is phosphate of lime and phosphoric acid. The former alone is insoluble, but the two combined are quite soluble and readily available for the use of plants. Now then, suppose we add "unleached wood ashes" to a mixture of phosphate of lime and phosphoric acid—in other words to superphosphate of lime—what is the effect? The potash and soda of the ashes unite with the excess of phosphoric acid, and leave the phosphate of lime in its insoluble condition. And thus we undo what has been done at considerable expense. If we add lime the same effect is produced with this difference that the *whole* of the phosphoric acid in the mixture combines with lime—the original insoluble phosphate of lime being formed. So that lime is even worse than unleached wood ashes, but neither should ever be mixed with superphosphate of lime.

With commercial superphosphate of lime, or with superphosphate of lime made from animal charcoal, burnt bones, apatite, &c., there is no necessity for mixing anything at all. Drill it in with the seed just as it is. Superphosphate of lime made from fresh bones, is, necessarily, so moist that some absorbent material must be mixed with it before it can be sown with a drill; and it is for this reason that British farmers mix coal ashes with it. Any dry material, that has not an alkaline reaction, such as charcoal dust, dried peat, burnt clay, &c., may be used. Burnt clay is, perhaps, more extensively used in many parts of England for this purpose than any other substance. J. H.

To make Hens Lay in Winter.

Messrs. Editors—As we are social beings, let us talk about poultry a few moments.

Now to my caption. First make a house, 8 by 10 feet—a 16 light window on the south side—a double door on the west—ventilator, eight inches square, in the top—let it run up 2½ feet above the ridge board. Line the inside of the room with boards, leaving a space of four inches—fill the space with saw dust or tanbark. Let the room be 6 feet between joints. Lath, plaster and whitewash it. Bank it up on the outside with horse manure 5 feet high Now you have a room that will not freeze. This room is sufficiently large for 25 hens and 1 cock. Place in the corner, a box 6 feet long, 1 foot square, with 5 partitions for nests. Place the box on the end; let the front be open, except a 4 inch protection to each nest. Let the roosts be in shape of a ladder. Your house is finished.

Keep 2 inches of sand upon the floor, with a box of ashes—another with slacked lime, one with gravel, and one with old lime mortar. Feed every variety that nature requires—corn, oats, buckwheat, screenings, boiled potatoes, cabbage, Indian meal ground with the cob, apples, cut hay, warm puddings, a little sulphur mixed with it. Keep fresh water or milk constantly *come-atable*—also plenty of feed. Feed fresh meat three times a week—of this fail not at your peril. In a warm day raise your slide and let them roam. Cold days, let them stay in. Follow these directions and hens will lay in winter as well as summer.

I have 15 early pullets kept as per directions. The 14th of December I found the first egg, and the 1st of March we have sold 36 dozen for eight dollars and 20 cents, and they still continue laying. Hens kept in this way will lay equally as well in the summer as if they were idle in the winter, but two or three years will use up any hen—therefore sell the old and keep the young.

I once kept from 300 to 500 hens for years, and if rightly managed they are profitable—if not, vice versa. Storrs Barrows. *South Trenton, Oneida Co., N. Y*

Culture of the Mangold Wurzel.

EDITORS OF THE COUNTRY GENTLEMAN—I notice in your paper of the 3d inst., an inquiry on the best method of raising Mangold Wurzel. I give you my system of growing them, which I have practiced both here and in England. I have grown them every year for stock, as I consider them better for that purpose than either carrots or ruta bagas, and as they are a crop you can always count on, as they are not subject to disease nor the attacks of insects, and keep later in the spring than Swedes. They can be grown in this country with as good success as in England if the same attention is paid them here as there, which I have no doubt will be done when their proper value is known by our farmers, for their stock, horn cattle, sheep and hogs.

To insure a good crop, get your ground into good tilth by first plowing and subsoiling. Then cart out your manure, barn-yard or a good compost heap. It must be well rotted, what we call spit manure, that is, manure you can dig with a spade. As to quantity, dump it cart thick, that is the length of your horse and cart from heap to heap. If you have applied this quantity of manure to any of your last year's crops, use that ground this year for mangolds, as it does not like fresh manure so well. When your manure is plowed in, give it a good harrowing. Then roll the ground. Then take coarse salt and give your ground a sowing of that, throwing it on as thick as you sow oats. Harrow and roll again. If your ground is not fine by that, repeat your harrowing and rolling. Get your ground in good condition, and you are sure of a crop. If your ground was manured last year with barn-yard manure, use this year two hundred weight of no. 1 guano, or three hundred of superphosphate of lime; mix either with four or five times its bulk of dry mould—apply it broadcast and harrow it in. Pounded bones (fine) will be a good addition to the above.

I would recommend to beginners to use superphosphate of lime as by it there is no danger of destroying your crop. With guano there is danger in inexperienced hands. Try a row or two with guano, and learn to use it by experience. Guano is our best special manure, but unfortunately it has got a bad name through people not using it with proper care. They then blame the guano instead of blaming their own want of judgment in applying it.

Ground that has been worked three or four years, is best for mangolds. They will not do as they should do on a sod. You can raise to advantage three crops of mangolds on the same ground. A level piece of ground is best. They will not do on a hill. Time of sowing from 1st to middle of May. Prepare your seed by soaking in warm water that you can bear your hand in, forty-eight hours. Then let it remain in your last cooling of water 48 hours longer or more. Then dry it in wood ashes, plaster or any thing that will dry it. Then sift it through a fine sieve to let the ashes off. Don't be afraid of soaking too long. I have let it remain after soaking until it began to sprout. The seed is so hard that if not soaked previous to sowing, it lays a long time in the ground before it germinates, and the weeds get the start of you, which, to grow mangold well, must not be allowed. Keep your ground clean and your crop will pay you. As to the manner of sowing your seed, that depends on circumstances. If you can get boys, they are the cheapest. Have a line the length or half the length of your ground, and a measure the width you intend to have your rows. Set the line tight; then shove one foot along the line which makes a good mark; then your boys follow and set the seed one-fourth or half an inch deep, twelve inches apart and two seeds in each hole. They can use their fingers or a small dibber; or set the seed six inches apart and one seed in each hole. After they are up thin to twelve inches apart. The distance apart of your rows depends on how you intend to cultivate them. If by the hand-hoe eighteen inches apart; if by the cultivator (horse) 2½ or three feet apart.

Another way you can mark out your rows: take a narrow piece of board and put a handle to it like a rake; put pegs in it the distance you intend your rows to be apart; set you line for one row and draw by it; then in your outside row set your last tooth and draw to the bottom, and so on all through. You can also sow your seed with a sowing machine. Regulate your plates and quantity of seed on a floor or level piece of ground. You cannot sow so regularly by it as with the hands, neither do I think there is any economy in it when you can get boys. You use treble the amount of seed, and when the plants are up it takes much longer time to thin them than it does when planted by hand, and they are not so regular in coming. Two pounds of seed will sow an acre by hand, whereas by machine it requires six pounds.

If you have any vacancies you can transplant from where they are thick, and they will do as well as the others not transplanted. You must get the whole of the root in length; if the point breaks off in lifting it, throw it away; it won't make a root. In lifting, use a dibber; shove it down half an inch from the plant, then pull to you gently, then take hold of your plant and pull gently, and you get your plant fit for planting. I have sowed mangold in a bed and then transplanted like cabbage.

When I use a machine I drill in guano or superphosphate of lime with the seed.

In cleaning them, keep the mould from them; if you have any hill let it be in the center of your row.

The sorts I always grow, are the Long Red and Orange Globe. The latter keeps longer and does better on some ground than the Long Red.

I commence to store them the latter end of Oct. or 1st. Nov.—as the weather favors. I let them stop out as long as I can. I commence a few days before I intend to pull the roots, to strip the leaves off, and feed them to the cattle, so that the cattle use up all the leaves. Just notice your cattle's eyes when they get a taste of them, and you will see how they like them—also notice your milk-pail and milking before you use them, and see the difference there will be in the quantity of your milk, and when they are all eat I think you will say, I wish I had more of those leaves. Set a man to pulling your roots, and a cart or wagon along; as they pull them, throw into the cart. Take them close to your cow house and pit them. Lay them four feet wide, with the outside row bottom to top with top out, roots in. Build 4 feet high, tapering so that you finish with two at the top. Then lay a coating of straw against them six or eight inches thick; then put your mould a foot or fifteen inches thick against that. When nearly headed, lay a board along the top (to keep rain out) for a few days This allows them to heat, and the moisture to pass off. When finishing, put about half a bundle of straw about twelve feet apart, along the top. This lets all heat that may rise pass off. I build my pits north and south, so that the south is easily opened and the north side stand. Care must be taken in removing, that a knife is not used in stripping the leaves. If they are cut, they bleed and rot. Pull the leaves down. I store ruta bagas and carrots in the same way. I am now using roots I put up last fall as above, and have not as yet met a bad one. If you put them in a cellar, cover them with coarse hay or straw to exclude air and light, as these make them shrivel.

If you wish, I shall give you my system of feeding to milk cows, and for fattening, both of which I use roots for to advantage. H. *Newton, New-Jersey.*

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A State Agricultural Society has been chartered in Kentucky, with an appropriation of $5,000.

Management of Dairy Cows.

Messrs. Editors—In the April no. of *The Cultivator*, I noticed some inquiries in regard to several points concerning the management of cows. As I have been connected with a dairy ever since I can remember, and believing no good farmers will pursue a course of management with either dairy or farm without first satisfying his mind with good reasons for so doing, I shall take the liberty to respond to the call of your correspondent, giving him the mode of management among dairies in this vicinity, together with their reasons, from which your correspondent may draw his own conclusions.

In answer to the first query—Is it best to milk a cow that is giving milk up to the time of calving?—With dairies here it is calculated to have their cows come in about the month of March, and not to milk from six to eight weeks prior to calving. The reason for discontinuing milking for that period, is—1. The milk shrinks down to a small quantity, which soon becomes almost worthless for family use—2. A cow needs some respite to recruit her. It is enough for her to nourish the fœtus. This applies to a dairy of cows fed upon hay and oat straw until near the time of calving, when they should have good hay cut in the herbage, to be followed about the time of calving with equal parts of corn and oat meal, 4 quarts per day.

There are cases of cows calving in summer, in good condition and high feed, which may be milked up to the time of calving, and give good milk. In such cases probably no injury results from milking them. But when milk lessens in quantity and deteriorates in quality, nature indicates the proper time to cease milking.

Your correspondent adds that he has a cow 5 years old, which gave promise with her first calf, of becoming a good cow, but has not as yet filled his anticipations. He asks if this is the effect of milking too long? I should think not, from the fact that such instances are known where the heifer has been dried off at the usual time. Neither are these instances rare, nor is the quantity of milk given by the heifer with the first calf, a safe criterion to judge whether she will become a good cow or not. Some heifers, which with their first calf give but a small quantity of milk, will in two or three years become good cows.

Query 2d. Is it best to feed cows before, at the time of, or after milking? I think it immaterial, as the process of digestion does not take place during the time she is eating or immediately afterward. She is a ruminating animal, and must first masticate her food. We usually, when feeding both hay and meal or roots, feed one before and the other after milking.

Query 3d. Is it best to milk at regular intervals of 12 hours, or to milk half an hour after sunrise and at sundown, all the year round? Milk at regular intervals of 12 hours as near as possible, by all means, especially during the hot summer months. Cows then feed mostly in the morning and evening, choosing to rest in the cool shade through the middle of the day; hence they should be milked and turned out before sundown.

As regards the manner of milking cows, the quickest way a cow can be milked and milked clean the better, and this can be done in one operation as well as two.

His experience in salting cows seems to be the reverse of dairymen in general. An ounce of prevention is worth a pound of cure. A small handful of salt given to cows twice a week seems to act as a preventive against many of the diseases incident to neat cattle. Besides regular salting in small quantities, saves a great amount of labor at the churn—*a fact worth knowing* to those who have to toil an hour or more to bring a few pounds of butter, and perhaps then of an inferior quality. Our dairy maid has repeatedly told me when I had neglected to salt the cows at the usual time, by the churning.

In regard to spaying cows, I am not as yet satisfied with its utility for dairy purposes. I have never seen the operation performed, but should judge from the anatomy of the cow that the operation cannot *always* be safely done even by a skillful veterinarian.

I hope, when the successful competitor for the greatest amount of butter and cheese made through the season, shall have *won* his laurels, that the various gentlemen who contend for the prize will give the readers of *The Cultivator* their modes of management in their respective dairies, which no doubt will be thankfully received by them. A. B *Charlotte, Vt.*

Profits of Dairying in Cayuga County.

L. Tucker & Son—Having noticed of late, several articles in *The Cultivator*, relative to the profits of dairies, I take the liberty of sending the report of a dairy in this town. And, as it belongs to a neighbor in whose business I have no interest, I suppose I may be pardoned if I brag a little.

The dairy belongs to William White, and is managed by himself and wife. It foots up thus: From 14 cows, all of native breed, and managed in the ordinary way, he sold 2,920 lbs. of butter at 25 cents per pound, which amounts to $730.00.

From the buttermilk, after deducting the value of grain fed, he made pork enough at $8 per 100, to come to $163.00—14 calf skins, at 62½ cents, $8,75—Making a total of $901.75, or an average of $64.41 per cow.

This we claim as ahead of anything yet published in The Cultivator for last year, and we challenge the state of New-York to beat it. The farm of Mr. White consists of 110 acres, which cost, two or three years ago, $25 per acre. He sold from it last year over $1000, worth of produce, the result of the labor of himself and wife alone. Considering the amount of capital, and the labor, where can it be beat? H. H. Tuthill. *Sempronius, Cayuga Co., N. Y.*

Churns and Churning.

Messrs. Editors—I notice in a late number of your excellent paper, a statement recommending Skinner's centrifugal Double Beater Churn. I fully concur in the statements of the Country Lady, but wish, for the benefit of all concerned in the dairy business, to add that the churn is not only a great saving in butter, but also in time, which I think no small consideration, a child from eight to ten years being able to churn for a dairy of ten or twelve cows, with comparative ease, and in much less time than is usually required. Cream should be of the right temperature, say 56° in summer and 62° in winter. I use a thermometer, and consider it indispensable in butter making. The churn is very simple in construction and not liable to get out of order, and is very easily cleaned; you have but to pour in hot water with a little soap, turn the crank a few times, and the churn is cleaned. I have used the above named churn the past season, and notwithstanding my strong prejudice in reference to patent churns, believe it to be the thing long sought for by all. For certainly, if there was ever a thing needed, it was an improvement in churns. Dairy Woman.

We know nothing of the churn alluded to by our correspondent, nor by whom or where it is manufactured; but if it is equal to the representations given of it by "A Country Lady," and "Dairy Woman," the manufacturer would do well to let the public know where it can be procured; and if he will send us one of them, we will endeavor to make good use of it.

Garget in Cows.

Messrs. Editors—I have frequently noticed in the Country Gentleman, inquiries from various individuals, for remedies to cure the garget in cows, and also the answers to those inquiries; and I suppose that the different remedies recommended by different individuals, have been used successfully by them. The use of *garget root*—also called crowberry by some—has been frequently recommended, and is perhaps used with as much success as any one thing. The directions for using this article, as well as that of many others, published from time to time, for the cure of the different diseases, which the various kinds of domestic animals are liable to, I think often fail of doing the good which they might, and which they are designed to do, simply because the individuals who write them, are too indefinite in their directions. The manner of applying the remedies proposed are not sufficiently described and explained. For instance, a correspoedent in a late No. of the Country Gentleman, says that garget root given a few times will effect a cure of this disease. I suppose that the root is to be given to the cow, though he does not say so; neither does he tell *how much* is to be given, how often, at what time, or in what way.

Another says that a seaton or rowel of garget root put into the cow, will cure the disease, but he does not inform his readers in what way, time, or in what particular place it is to be placed; consequently the remedy is not applied, because the individual is at a loss to know how to apply it, or not knowing the effect that will be produced by it, he is afraid to make the application lest he injure the animal, and thereby do more hurt than good; and especially is this the case in giving the garget root, as it is well known that this root is deadly poison to the horse, and a small portion eaten by a horse will cause its death in a short time. I have been told by those who have given it to cows when they had the garget, that they would eat it readily and without injury to them,—that a little of the root, given to the cow affected, would generally cure the disease—that a good way to give it is to take some raw potatoes and cut holes in them, and put a small piece of the root in each potato and let the cow eat them.

At different times I have had two valuable cows lose the use of a part of their udders, in consequence of having the garget, and in each case I made use of numerous remedies in the form of an outward application to the udder, but without receiving any benefit from them.

A short time after the last cow had the disease, a friend of mine was visiting me, and being in the yard at night while I was milking this cow, he inquired—what was the matter with her udder? I told him that she lost the use of a part of it in consequence of having the garget. He replied that there was no need of cows being injured by that—he could cure the worst case of the disease in three days—that the hardest case of the garget that he ever saw, was cured in less than that time with a peice of garget root not larger than a plum, by putting it in her dewlap for a rowel. He said the effect of putting in a seaton, would be to draw the swelling from the udder—that he put it in the dewlap, in order to get the swelling as far from the udder as could be, and that in this place it would be the least trouble to the cow, as in some cases there would be considerable swelling about the seaton. Immediately after this, I procured some of the garget root for future use. In a few weeks this cow of mine had another attack of the disease. One part of her udder was swollen very much and quite hard, so much so that I could get no milk from it. I now concluded to try the efficacy of a garget seaton. With a sharp knife I made an incision in the side of her dewlap just forward of the brisket, and inserted a piece of the root about the size of a common plum, and took a stitch with a needle and thread across the cut, to prevent the seaton getting out. The result was as follows: In about twelve hours from this time the swelling and hardness in the udder had diminished considerably, so that I could get some milk from her. I noticed at this time that the swelling had extended along on her belly towards the brisket, and that there was some swelling about the seaton. In twenty-four hours the swelling and hardness in the udder were nearly gone—that around the seaton much increased; and in less than two days the cow was apparently as well as she had been, gave milk as freely, and as good as usual. The swelling on the dewlap continued for a few days, then subsided and healed up. This remedy is a safe and cheap one, and can be quickly and easily applied by any one without injury to the cow, and if it in any case should not effect a cure, it will do no hurt, which is more than can be said of many remedies which are applied for the cure of diseases. C. T. Alvord. *Wilmington, Vt.*

I will mention a simple remedy for garget, which I have tried successfully many times: Wash the udder with salt and water, twice a day, and it will generally disappear. If the case is obstinate and has been neglected, Garget Root or Crowberry, given a few times, will effect a cure. A. T. Judd. *Hadley Falls, Mass.*

Cement Cellars—Water Troughs.

Messrs. Editors—Can you or any of your numerous subscribers, inform me of the best mode, or how to cement cellars, or make a hard, smooth and durable bottom, sufficient to keep out rats and moisture, the cellar bottom being stiff blue clay. Also, any information how to construct a trough for watering stock, and the best way to supply and let off the surplus water, and have it dry around the trough, will be thankfully received by a subscriber. A. B. *Charlotte, Vt.*

Mix 2 parts of the best water lime, or cement, (proved such,) with 3 parts of sharp, clean sand, and spread immediately over the cellar bottom. This will become like stone. A more perfect bottom, and requiring less cement, is made by first finely and evenly paving the bottom, then applying rather thin mortar of water lime. It runs down among the stones, and all form a hard mass. The best mortar will soon harden, and it is therefore best to mix the lime and sand *dry* first, and then mix with water such portions successively as may be quickly applied.

A water-trough may be made oblong of pine plank, or other wood not liable to warp; or a large tub may be used, one of the best of which is made by cutting into two parts an old *oil hogshead*, well washed with ashes to prevent an oily taste of the water. This will be very durable. The water may run off in a drain filled with stone and paved on the top—or through a tile drain, if the soil will not become worked up into mud around the place of watering.

A Safe and Convenient way to Preserve Grafts.

Messrs Editors—I wish to inform the readers of the Country Gentleman how to preserve scions for grafting, with no danger of failure and with little expense or trouble. By packing grafts in saw-dust from green or unseasoned hemlock logs, (and perhaps saw-dust from any other moist timber would be equally as good.) I have frequently kept grafts from November till April or May in the most satisfactory condition.

Sand will answer a good purpose in skilful hands, but would not succeed well with all, for if too dry it absorbs too much moisture from the grafts, and if too moist is more destructive still, and at best is injurious to the knife in grafting. By the above method of preserving grafts they may be collected at any time from November till April, and kept in a cellar till they are wanted for use without any danger of failure. E. S. H. Cobb. *Hamlinton, Pa.*

The Cultivation of the Beet-Root.

MESSRS. EDITORS—The field beet root or mangold wurzel, has of late years been cultivated to a great extent in France for the purpose of manufacturing brandy therefrom. For many years, previously to those in which the mangold wurzel had been extensively used for the distillation of brandy, vast quantities of sugar had been manufactured from beets. The manufacture or distillation of brandy has proved to be so much more profitable than the manufacture of sugar, that many large establishments formerly used as sugar factories, have been remodelled and converted into distilleries for the preparation of brandy from the same species of roots.

These facts have recently attracted the attention of enterprising agriculturists in Great Britain, and as the moist climate of that country is much more favorable to the successful cultivation of beets and other roots than the more arid climate of France, it seems highly probable that a business which has proved to be quite profitable in the latter country, should be still more so in the former. Movements are now being made, therefore, having in view the extraction of alcohol or spirit from the field beet root. The alcohol, or spirit, procured by distillation, is not the only product of this mode of employing the beet root which renders it a profitable one. The pulp which remains as refuse has been employed in two different ways; first, as an article of food in the feeding of stock and the fattening of cattle and sheep; and, secondly, as a material for the manufacture of paper.

Now it has appeared to me that the facts furnished by the extensive employment of the beet root in France for distilling and other purposes, as also the movements at present being made in Great Britain with a similar object in view, are not undeserving of notice among the agriculturists, and the distillers of alcohol, for use in various arts, on this side of the Atlantic. For even although spirituous liquors were wholly set aside as beverages, and a judicious Maine Law in successful operation throughout every State in the Union, still there would be a large demand for alcohol and proof spirit for use in pharmacy and various other arts. And although our climate is not so favorable to the growth of beets or other roots, as that of Great Britain, still I know of nothing that would prevent such crops of mangold wurzel as might be raised in several of the States, from becoming quite profitable to the producers both of the raw material and of the manufactured article.

With such views in regard to this new mode of employing an important agricultural product, I would solicit the attention of some of our more enterprising men, both farmers and distillers, to some specimens of the way in which this matter is regarded by some of the more enterprising of our agricultural brethren on the other side of the Atlantic. I submit the estimate of produce or yield per acre, and the calculations of prices and profits, as I have found them in foreign journals, leaving to each reader the task of making such deductions, modifications and alterations, as the over-enthusiasm of the projectors of a new branch of industry, together with the differences in the climate, and the currency of the two countries, may seem to each to require.

In some districts of Great Britain as much as 40 tons of mangolds have been raised on an imperial acre —probably by means of liquid manuring—and it is thought to be no exaggerated estimate when it is calculated that 25 or 30 tons may be secured as an *average* crop, if *proper means* are taken.* This produce may be estimated at £1 (about $5) per ton or £25 to £30 per acre. The establishment of distilleries for the extraction of alcohol from mangolds would make a market at that price for large quantities of these roots. As has been already stated in this paper, the fact that the manufacture of spirit from the field beet has been carried on to a large extent in France, and that it is rapidly extending at this moment, proves that the project herewith submitted is not a visionary one. If it is a fact, as it is stated to be, that the climate of France is so much drier than that of Great Britain as to restrict the produce of roots, per acre, to about one-half of what can be raised in the moister climate, then the growth and manufacture now under notice should be much more advantageous in the latter than in the former country.

It is no small recommendation of a spirit made from beets, that it would be produced from a raw material not employed as food for man; so that, in seasons when the prices of grain rule high, the price of breadstuffs would not be increased by the demand for purposes of distillation.

According to the best authorities, 100 lbs. of field beet will yield from 10 to 12 lbs. of proof spirit; and the smallest of these quantities is equal to about 6½ quarts. Let it be taken at 6 quarts, then a ton (2240 lbs.) of mangold will yield 120 quarts of proof spirit. The produce of one acre will thus yield of proof spirit 3600 quarts if the yield be 30 tons, and 3000 quarts if the crop should be only 25 tons. Taking the lowest quantities or 25 tons of beets and 3000 quarts of proof spirit, there would be a return according as the price of the spirit varied from two to four shillings per gallon, of between £75 and £150 (about $375 to $750) per acre, in the product of spirit alone. Or suppose that the farmer disposes of his mangolds to a neighboring distiller at £1 per ton, he would have £25 or £30 as the case might be—a sum which would amply remunerate him, while the probable result seems equally favorable to the distiller.

But in addition to the spirit, there is another item of profit in the dry fibre and tissue of the mangold. This pulp or fibre, after the whole of the saccharine matter has been extracted, is worth at least £10 (about $50) per ton, as a material for the manufacture of paper. This fact has been ascertained on reliable authority; and it is supposed that 30 tons of beets would yield about 1 ton of fibre or pulp. Paper has already been manufactured from this fibre. (In this estimate of the value of pulp for the manufacture of paper, there must be some considerable exaggeration certainly; but we give it as we find it.)

This pulp may also be employed for feeding purposes. Some very interesting experiments have been published in France, of the use of this along with other substances, in the fattening of cattle and sheep. About 80 to 90 lbs. of pulp appears to be the quantity which an ox will consume daily, with a moderate allowance of clover-hay and straw. This may, after further trials, prove a more useful and more profitable means of using the pulp than employing it in the manufacture of paper. Compared with turnip, weight for weight, this pulp is more valuable as a feeding substance than even the most nutritive variety. The extraction of the saccharine matter deteriorates, without doubt, the nutritive quality, but, on the other hand, as more than 80 per cent. of the mangold is water, a great proportion of this is pressed out along with the saccharine matter. In France it is generally used by the sugar manufacturers and distillers themselves, and when sold the price varies from about 5 to 10 francs per 1000 kilometres, which is nearly one ton.

As a source of alcohol there is a great contrast between an acre of beets and an acre of barley, which is the grain most commonly employed for distillation in Great Britain. Supposing that barley should yield 60 bushels per acre, of 55 lbs. per bushel, even this large produce would not yield one-third as much spirits as 30 tons of mangolds. From 100 lbs. of roots 10 to 12 lbs. of proof spirit can be extracted, and from 100 lbs. of barley about 40 lbs. But the whole weight of an acre of barley will yield only 1320 lbs., or 840 quarts; while an acre of mangolds will yield 67,200 lbs., or 3600 quarts of spirit. (Corresponding calculations may be made as to the grain used in this country.)

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* These *estimated* averages are nearly double of the *actual* averages as shown in the Statistical Returns of England and Scotland.

In every aspect of the subject, the employment of beets as a source of alcohol seems deserving of consideration. The more extensive cultivation of roots would enrich our lands, or save them from exhaustion, and the products of a beet crop might furnish large profits here as well as in other countries. Observer.

Liquid Manures.

Messrs. Tucker & Son—Your Salem correspondent, R. B., complains that when liquid manures are recommended, instructions for their use are not given. He asks " how much guano, how much soot, and how much urine, to 150 gallons of water ?"

Now R. B. has a previous question to settle. Are his soils such by nature, or by underdraining, that any quantity of water will readily pass off through them ? If not,—if the water has no way of escape but by evaporation, then liquid manuring is out of the question ; for nothing is better settled than that, in order to its beneficial application, the soil, and not only so, but the subsoil, to a depth of at least three feet, must be pervious to water.

If this question is settled in the affirmative, then another arises—a question of economy—has R. B any means of applying liquid manure, at a very small expense ? If not, liquid manuring is out of the question with him, unless he wishes to farm without a profit, as I suppose he does not. You may water a small garden plot with the hand engine, without loss of labor. Possibly you might apply liquid manure to a very small field, by means of an ox watering cart, if very near the barn, with paying results. But you can never afford to apply it to a considerable mowing plot, unless you have the means of doing it, at a greatly diminished expense, as compared with either of the above.

And now for R. B.'s question :—Five lbs. of guano, 20 lbs. of soot, or 50 lbs. of putrid urine (it should be used in no other state,) would be quite enough for 150 gallons of water. Were you to reverse the form of the question, and ask how much water to a ton of guano, of soot, or of urine, the answer would be easier. It would be simply—a great deal more than you would be willing to apply, by any means ordinarily existing on a farm. The idea of liquid manuring is not that of besmearing over the growing plants with a mixture about as thick as the painter's oil and lead. It is rather that of watering with a nearly transparent fluid. The first falling rain, after a long dry spell, especially if it be near a city, where smoke, soot and various gasses have arisen and mingled with the falling water, gives the best possible idea of liquid manuring Indeed it is liquid manuring, in its perfection ; and any liquid manuring which does not pretty closely resemble it, is wrong, and does not deserve the name. The substances dissolved, must be diluted in large quantities of water, or the object—that of forcing plants with food convenient for them—is not gained. We want that the water should carry the food down to the roots of plants; but this it will not do, unless applied in great quantities.

Liquid manuring is next door neighbor to irrigation —is almost the same thing. Either implies a homœopathic dose of some fertilizer in a plentiful allowance of water; and the great weight of the fertilizer, thus diluted, will be an insuperable obstacle to this mode of application, till some way shall be devised for applying it, for a less number of mills per ton than it now costs cents. But if your correspondent will put on his rubber overcoat, and sow his guano, say 250 lbs. to the acre, just as a northeast rain is commencing, he will, by the aid of Providence, give it as much as 150 gallons of water to every five pounds of guano. This would be a very respectable liquid manuring. The harder and longer the rain, if his ground be porous and not too steep, the better; and if he would apply his soot and urine, as top-dressings, in the same way, I see not why it would not be good practice. If the application were made rather late, after the grass had started pretty well, there would be less loss of ammonia ; and possibly it might pay to make it at different times, with an interval of ten days or a fortnight between. J. A. N.

Cure for Fistula and Poll Evil.

Messrs. Editors—I give my experience to your subscriber in Fallston, Pa., in the cure of Fistula or Tumor on the withers of horses and also Poll Evil, as follows:

Having procured a small quantity of arsenic (virulent poison) of a druggist, take a large goose-quill, cut off both ends, clean the barrel inside, make a piston-rod of hard wood to fit the barrel of the quill, split the small end of the quill on one side half way up : now fill the quill half full of the coarsely pulverized arsenic : introduce the small end of the quill into the place of discharge of the tumor nearly the whole length of the quill if you feel no resistance, or as far down as it will go easily. Now with the piston-rod force the arsenic out of the small end of the quill into the bottom of the tumor. If you doubt (through accident) having deposited the whole quantity of arsenic, prepare another quill and deposit an other charge. It will do no harm, though one complete charge is sufficient. Now leave the horse to his fate for from 10 days to 3 weeks, only give his usual food of hay, oats and water. Within this time, probably in 4 days, he will begin to swell about the tumor, which will increase and frighten you ; but never fear, it is the best symptom. Presently you will see a crack or separation in the skin between the sound and dead flesh all round the tumor. You may or not, as you please, make a wash of chamberlye and copperas, and clean off his shoulders, but do not attempt to extract the tumor by the least force as you will break off the tap-root by which the cure will not be perfect. When this lump of dead flesh (the tumor,) drops out of itself, with the above wash cleanse the sore to the bottom ; be particular to see if any root or stringy dead substance remain ; if so, drop on it a particle more of the arsenic. Continue this examination and application until you are sure no dead substance remains. After this, with the above wash, cleanse as often as you please. If the fistula be large, one and perhaps two of the fin bones may protrude. If they appear black and dead, cut them off carefully before the new flesh grows over them.

The horse should not be allowed to stand by or run in the pasture with other horses, as by itching he will solicit them to bite or injure the live flesh.

I will warrant a perfect cure of Fistula or Poll Evil for $8, having done it repeatedly and never failed of a perfect cure. Charles Booth. *Lyn, C. W.*

Colza and Rape—Culture and Uses of.

These plants have hitherto secured but a small amount of attention in the United States. The trials which have been made and reported, are sufficient to render it probable that the more common of the two—rape—may be cultivated with advantage here, as it has been, a great length of time, in England and on the Continent of Europe. We want, however, more light upon the subject, and this must come to us mainly through carefully conducted experiments in different districts and latitudes of our own country. Here is an opportunity for the more patriotic, public-spirited and enterprising of our agricultural brethren, to confer benefits upon their brethren and upon their country. More trials are needed to determine its exact comparative value as a forage plant, for soiling and the supply of food to dairy cows and the farm stock generally, during the drier portions of our summers. We need more trials in order to determine whether these plants, or either of them, are capable of living through our rigorous winters. On these and other points connected with the culture and capabilities of these forage and oil-yielding plants, we stand in need of more accurate and reliable information. We trust that there will be found in the different States men of enterprise and public spirit, in sufficient numbers, to institute experimental trials during the present season, to be continued and repeated in subsequent ones, by the results of which information of much value to individuals and to the country at large may be obtained. All engaging in such experimental trials and reporting their results, will be public benefactors.

Perhaps the most instructive report yet given to the public, is that which appeared in the issue of the *Country Gentleman*, Jan. 3, 1856, from the pen of LEVI BARTLETT, Esq. In that article there are sufficient indications of the proper mode of culture to enable any one to conduct a trial on a small scale; and the useful applications made of the plants seem to have been sufficient to insure any one against loss in making some similar experiments. We trust that in the course of next winter we will have a few more experiments to report.

The Colza is a plant of the same genus or family, but of a different species. We are informed that "it is an article of immense importance in French and Flemish husbandry." It is cultivated mainly for its seeds, which are crushed and pressed for their oil, similar to flax-seed. The oil is used to burn in lamps and for a variety of other useful purposes.

At the last meeting of the U. S. Ag. Society at Washington, a communication upon the subject of this plant and the oil to be obtained from its seeds, was received from Dr. JOHN WARE of Boston. He states that during a late tour of a year in Europe, in company with Prof. TREADWELL of Cambridge, their attention was frequently directed to the comparative qualities of the various articles employed for procuring light in the different places they visited. Among all the articles of this kind which came under their notice, the oil of the seeds of the colza seemed preferable to all others, from the freedom with which it burned, the excellence of its light, and the small amount of impurities which were deposited on the wick. This oil is extensively used in Paris, and is getting into use in London also. The plant from which it is procured is extensively cultivated in France, and still more in Belgium, being considered a branch of industry of great importance. While in Paris Dr. WARE met with Mr. EDWARD BROOKS, who during a long residence in Europe, had given much attention to the oil-producing plants, and had become so impressed with the importance of introducing the colza into the United States, that he had caused an experiment to be made on his farm at Medford, Mass. Dr. WARE has tried an experiment also, and the results, so far as the growth of the plants and the production of the seed were concerned, exceeded his expectations. Though colza, like other plants of the cabbage family, is a biennial, Dr. Ware is of opinion, that the crop may be ripened sufficiently in Massachusetts, if put into the ground early in June. Dr. WARE intends to continue his experiments; and it would certainly be desirable to have similar trials made in different varieties of soil and climate, as it must be regarded as almost certain that, in *some* regions at least, of our widely-extended country, the colza may be successfully and profitably cultivated. "The increased and increasing consumption of all kinds of oil, and the great rise in their price, render it almost a matter of necessity that some substitute for those in use should be found. The perception of this necessity is most strongly shown, by the variety of imperfect, and often *unsafe* articles which are constantly pressed upon the public." A good and safe oil for illumination, and at a cheap rate, is certainly a *desideratum*. Let experiments, therefore, be multiplied.

Manures.

Much is now written and published in the agricultural periodicals of this country upon this subject, and it is well that it is so. Farmers are waking up to their true interests, but I cannot but think that there is danger of placing too much reliance on the chemicals,—the phosphates and superphosphates, the guanoes, gypsum, &c. These are all well enough in their places, and as auxiliary to the genuine farm manure made in the barn-yard, hog-yard and compost heap, will no doubt pay well for the using. They are stimulating and specific in their nature, and act powerfully on some soils for a crop. But will it do to depend on these alone? Do they, in a long run, impart any richness, strength or depth to the soil? If not, by a dependence on these alone, and by a continuous use of them, the soil must become impoverished. To get large crops there must be sustaining elements in the soil; and after the first virgin fertility is extracted, a return must be made to replace what is lost by a continuous cropping, or the best of lands will deteriorate I have no doubt but some of these powerfully specific manures may and do have a wonderful effect on some old soils apparently much worn, by drawing upon the latent energies and rousing into action every particle of fertility left; but let this process be followed without the aid of the barn-yard, and their effects must become imperceptible.

Some thirty-five years ago, when plaster first became known as a fertilizer in this part of the country, I knew a man, the owner of a beautiful interval farm on the Connecticut river, who became highly enamored with this article, and suddenly came to the conclusion that he should never need any more manure. Every 100 lbs. sowed broadcast upon his grass lands made him an extra ton of hay, and his only trouble was how to get rid of so much; he invited the village people to purchase grass standing at a cheap rate, and hay it themselves; and having but little pasture land, he sold off his cattle, and was getting rich rapidly by selling hay and grain. As his lands had been manured for several years, and were in a high tilth when he commenced this operation, they held out for four or five years pretty well; and when they began to fall off in productiveness he began to increase the quantity of plaster, until the 7th or 8th year, when they produced but little, scarcely enough to pay the labor of getting a crop of any kind. He was then loud in his execrations against *Plaster Paris;* the cursed stuff had ruined his lands, and he never would use another particle, and wished it had all been annihilated before it became known. He did not even dream that the fault was all a lack of sense and judgment in himself. Had he consumed those abundant harvests of hay and grain upon the farm, or even half of it, and made annual returns of the manure to the soil, his lands would have grown rich as well as his purse, and he might have kept on with the moderate use of his first favorite, and then much abused article, to the advantage of himself and farm. As it was, he cheated his soil, and in the end it cheated him; and such will always be the result with him who works against the laws of nature.

For the last twenty years I have been in the constant use of plaster, slaked lime and wood ashes, in moderate quantities, and believe I have derived great benefit therefrom; but never have I seen the day when I thought I could forego the use of all the manures that could be made upon the farm, not only from the hay and a large share of the grain, but also the compost heap, and supplying with refuse materials the yard of the working swine.

I have had no experience with guano or the phosphates, and perhaps I had better not said anything about them, but I look upon them as special manures, good for the occasion, but I believe we should not have so great an *occasion* or necessity for them if we only husband our means to make and save all the refuse fertilizing substances on and about our farms, and turn them into the soil.

Whenever it becomes obvious by experiment that these fertilizers pay well for the using by the increase of production, there must be yet a further gain if we manage for an ultimate benefit, by feeding out upon the farm this increase of the crop, and enlarging the quantity of manure, instead of selling off for immediate profit. In this way, and in this way only, in my weak judgment, should we depend on these manures; and by these means need we neither impoverish our soil or ourselves. J. W. Colburn. *Springfield, Vt.*

Corn for Green Manure.

Messrs. Editors—I wish to make the inquiry of you, of the relative value of sowed corn plowed under as a manure. Would it not be worth more than clover or buckwheat? We know we can raise ten times the amount in bulk by sowing the large western corn, that we can of clover or buckwheat. By rolling it down, it can be covered nicely with a good plow. I plowed under an acre last year, just by way of experiment. But I thought it would be safer to be enlightened a little on the subject, than to be groping in the dark. Please to give me your opinion in reference to its *value, compared* with other green crops, and in what state of the corn it would be best to plow it under. Otsego.

Analysis shows clover to be the most valuable green crop for manure, according to its weight, and experiment confirms its value. The same weight of cornstalks would not probably yield more than half the amount of fertility. We should discard buckwheat, except as a weed-smotherer, while corn and clover could be had. We have never found so great a disproportion in the *quantity* of corn and clover, as our correspondent states, the corn stalks never exceeding the weight of clover more than three times, on soil of equal fertility. The large sorts of corn, (which however will not grow so thick as small,) may increase the difference.

If cut too green, the stalks will not have sufficiently developed their fertilizing qualities; and if too ripe, they will not decay soon enough. The best time is when the edges of the leaves begin to dry, or about the time that the ears begin to be glaze.

We want measured experiments to determine the relative value of these crops for manure—will not our correspondent undertake a series for this purpose?

Pear Blight.

Messrs. Editors—Will you through the columns of your very instructive journal, the Country Gentleman, inform me, and a numerous class of readers interested in pear culture, of the comparative hardiness of the following varieties. What I mean by hardiness, is security against fatal blight, for with me even the Seckel and White Doyenne are sometimes slightly affected, and I may add that I regard the Winkfield the most tender of all that I have any experience with, having never been able to save a tree of that variety that was once attacked:—Lawrence, Aremberg, Winter Nelis, Glout Morceau, Easter Beurre, Winkfield, Beurre d'Anjou and Flemish Beauty,—and the stocks best adapted to each. A Subscriber. *Geneva, N. Y.*

A great deal of experience is required to establish the character of a variety in relation to the blight—a disease so strikingly capricious and uncertain, and variable in its preferences and attacks. General observation, however, concurs in ascribing to the Glout Morceau the greatest liability to blight *in the nursery row*, and to the Madeleine, in the orchard or with larger trees. The Bartlett and Winkfield are also found to be very liable. The others in the list named, more generally escape.

The Lawrence, Aremberg, Winter Nelis, and Flemish Beauty, are best on *pear* stocks, although the two first will do tolerably well on quince. The Glout Morceau is perhaps best on quince, and the Winkfield and Anjou succeed well on both.

The Borer—Peach Orchards.

Messrs. Editors—I wish to ask the best means, if there is any, for the extermination of Borers in trees, and the mode of treatment to trees, that have been affected by them. Also what is best to plant in a peach orchard, that is, what would be apt to thrive the best, and prove the most advantageous to the trees. A. G. *Ashland, Mass.*

The borer, which perforates the wood, and in time makes it like honey-comb, killing the tree, may be destroyed by punching it to death in its hole, with small flexible twigs. The peculiar crushing sound, will show when the insect is reached. We have known many badly affected trees restored in this way. They must be timely and constantly watched. "The price of [fruit trees] is eternal vigilance." It is said a mixture of a pint of sulphur, a gallon of soft soap, and enough tobacco-water, to soften it to the consistence of paint, will exclude the borer, if applied before it enters.

Exclude all grass and *sowed* grain crops from peach orchards—potatoes, turnips, and beans will do pretty well, but a clean, mellow, *bare* surface, made by plowing and harrowing is best.

Hardiness of Plums.

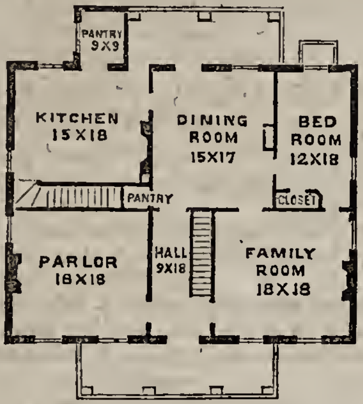
Is the M'Laughlin plum hardier than the Jefferson and Autumn Gage? Last fall I bought about 700 fruit trees, and among the lot were a few plum trees. I now find the Jefferson and Autumn Gage are dead, and the M'Laughlin alive. J. Perine. *Norwich, Ct.*

Much depends on circumstances, as to the hardiness of plums. Sometimes a wet summer will keep up the growth and prevent proper ripening of the wood, and in such cases comparatively mild winters have occasioned more injury than the most severe on well matured shoots. Again, those on wet spots of ground will be more injured than on drier. We have never known the *Lombard* plum tree to be the least injured by cold—it appears to be as hardy as a sugar maple. The

Red Gage is also hardier than most others. The M'Laughlin has generally proved about as hardy as the Jefferson. The Imperial Gage, Columbia, Lawrence Gage, Huling's Superb, Red Diaper, Washington, and others, are rather more liable to injury. The observations of others, in relation to this subject, would doubtless be interesting.

Plan of a Farm House.

Messrs. Eds.—In your paper of 28th February, seeing something said about plans of farm houses suitable for the mass of large farmers, I take the liberty of enclosing you a plan of a farm house built by me for my own use, which, for convenience and room, has been a good deal commended. The house is 45 feet by 36, without wings, as I consider the nearer we can approach to a square form the more room we will get.



In this plan you will perceive that there is not an inch of lost space any where; every part is put to some good use. There are 10 good rooms, (not one little one,) besides a large garret, and good halls above and below.

I built this house in Mahoning county, Ohio, three years ago, at an expense of about $1,800, the workmanship all being good, but plain.

I have given no plan for the elevation of the house, as it may be built after any of the modern forms. Wm. Little. *Muscatine, Iowa.*

[We omit the plan of the second floor, as the rooms are an exact copy in size and position of those on the first floor. Eds.]

Rotation of Farm Crops.

Messrs. Editors—Allow a subscriber to give what he thinks a good rotation for farm crops:

1st. Corn and roots after clover, with the best of your manure.

2d. Barley or oats, seeded with clover.

3d. To be mown, one crop of hay and one of seed.

4th. Early pasture and summer fallow, with all manure not put on corn ground, and sow to wheat.

5th. Pasture very little after wheat is off.

6th. Pasture.

With this plan you want six fields, (beside perhaps your orchard, and a meadow for horse hay.) One field is in corn and roots, one in barley and oats, one to mow for hay and seed, one in summer fallow, one in wheat and one in pasture.

Clover sown in the spring, should be pastured slightly in the fall following, if at all. The next season let it get a good growth, and then be sure to plow it the year following.

Sow plaster every time you seed. Isaac Roy. *Phelps, Ontario Co., N. Y.*

To Prevent Foxes Killing Lambs.

Messrs. Editors—In your May Cultivator, I notice an inquiry for some method to prevent foxes from destroying lambs. Now, as the most efficient method is to destroy the foxes, and which may easily be done, I here give you the "modus operandi."

Take common brook trout, cut them into pieces (head, tail, intestines and all,) of a suitable size to be put into a common junk bottle; fill the bottle, cork it, and place it in the sun. In a few days the fish is dissolved, and is a liquid of a peculiar strong smell. Now take small pieces of meat, bread, sausage, doughnut, cheese, scraps, &c., and into each piece make a small hole and put in strichnine; confine it there by pressing the sides of the hole together. Your doctor will tell you the quantity for each piece of bread or meat. Place these pieces about 30 rods distant, around your field on the outside, on a stone, chip, board, bark, or a large leaf; then pour on a small quantity of the liquid from the bottle. A fox will frequently take the scent of this fish liquid 20 rods, and will pursue it until he finds and has swallowed the dainty morsel. He will soon begin to feel "a kind o'sick," and if your lambs are within his hearing and sight he will not molest them, but think of retiring, and soon becomes no more of this world.

The above is a sovereign remedy for the whole canine family. It is said a wolf will catch the scent of this fish liquid half a mile, and will instantly pursue it until he finds it. This being so, a few persons provided with the above ingredients, might destroy all of the foxes, wolves, wild cats, panthers, lynx, &c., in an entire township in a few weeks. It is said that eels, pickerel, or any other fish which are destitute of scales, will make the above liquid. If dogs are too plenty in any neighborhood, the secret of thinning them off is now published. A Wool Grower.

For Heaves in Horses.

In answer to an inquiry in the Co. Gent. from E. R. Brown, in reference to heaves in horses, I would advise the using of cut straw quite freely; wet the straw after cutting, mix on corn and oat meal—feed no hay—feed oat straw as hay is fed from racks. The oats should be cut as early as possible and not to injure the grain for market—straw to be kept from rains as much as possible, and taken to the barn bright. More grain has to be fed, and may be as straw is much cheaper than hay to feed. When the weather is too cold to feed wet straw, oats and straw may be fed. A Subscriber.

How to Fatten Lambs for Market.

A correspondent of the *Maine Farmer*, says that Mr. Elisha Soper of Orland, had for years fed grain to his sheep, for the purpose of forwarding his lambs, but received but little benefit therefrom. He at last thought there might be a better way, so he tried the experiment of feeding his lambs with oats, in a trough made by nailing two boards together, covering the ends, and raising it about six inches from the floor. He puts in the oats and leaves them until the lambs learn to eat them, which he says they will do when about three weeks old. He leaves a passage for his lambs so small that his sheep cannot trouble them, both in his barn and in a yard made for the purpose after going to pasture, and continues to feed until he sells, which is in June. He has lambs ten weeks old that will dress sixteen pounds.

Huge Pumpkin—We have received from Dr. John Doy, of Lawrence, Kansas Territory, seed of a *potato pumpkin*, weighing 105 pounds, and measuring five feet in circumference.

The Housewife.

Protecting Dried Fruit from Worms

Messrs. Tucker & Son—I can inform your correspondent, W. C. Healy, of an effectual method of preserving dried fruit through the summer, which we have practiced for several years. We place it in a steamer, or any tin vessel with plenty of holes in the bottom, and set it over a kettle of *boiling* water; then cover it closely with several thicknesses of cotton or flannel, in order to prevent the escape of any of the steam. It should be allowed to remain until *thoroughly* heated, when it can be put immediately (there being no necessity for drying,) into a clean cotton or linen bag, tied up tightly, and hung up in a cool place. Twice in a season, say in May and July, will probably be sufficient. I will warrant this to be effectual. Libbie. *St. Johnsville, N. Y.*

I noticed an inquiry in a late no. of the Country Gentleman, how to prevent worms from getting in dried fruit. After the fruit has been dried in the sun, put it on tin or dripping pans, and heat it thoroughly; be careful and not scorch it. Then put it in glass jars, and it will keep for years, or it will keep well in cotton bags. B. D. C. *Langley, Va.*

Messrs. Editors—I noticed in the Country Gentleman, vol. 7, no. 17, an inquiry how to keep dried apples through the summer. I have scalded mine in a hot oven, for a number of seasons, and I have never had any worms in them since. I either scald them in the fall, or in the spring before the weather is warm enough for the insects to hatch. I think the eggs are laid on them in the fall while drying. There are others in this vicinity who have tried it, and they are not troubled with worms in their apples. Other dried fruits can be preserved in the same way. A Farmer's Wife. *Conn.*

We have a very simple and effectual method of keeping "Dried Fruit," namely: In the spring, before the worms have made their appearance, (or even after you can detect a *few*,) wash your fruits in a liberal quantity of warm water, as if you were preparing them for cooking. Shake the water from them,—and dry, either in the house or out as may be convenient. They will dry in a few hours. And this time you will be too early for the insects, and therefore secure the eating of your own delicious fruits. Isaac File. *Brunswick, N. Y.*

Washing Prints.

I will send you a recipe for washing prints, to prevent their fading. It may be new to some. My better half says she has tried it, and knows it will keep the worst colors from fading.

Recipe—To wash prints, delaines and lawns, that will fade by using soap—make a starch water similar to starch made to starch prints with, and wash in two waters without any soap—rinse in clean water. If there is green, dissolve a little alum and put in the starch water. C F. W., Sr.

Tomato Catchup, Sweet Cider, &c.

Will you be so kind as to publish in the Co. Gent., the best recipe you are in possession of for making tomato catchup, apple butter, and for making cider and keeping it sweet in summer. R. R. D.

The tomato should be squeezed up in the hand, salt added, and then allowed to stand 24 hours. After passing through a sieve, add cloves, allspice, pepper, mace, and whole mustard seed. Then boil it to one third, bottle, and cool it. A considerable portion of salt and spice is needed to keep the tomato well.

We cannot give the best mode of making "apple butter."

Fresh or sweet cider is kept sweet by simply boiling down. It is usually thus reduced to one third, but we are assured by those who have boiled it down scarcely one half, that it keeps perfectly well.

Soda Crackers.

In No. 2 of vol. 7th, of Country Gentleman, C. W. F. inquires for a recipe for making crackers equal to the purchased article. For *soda* crackers, we know the following recipe will make crackers superior to any we ever purchased.

Recipe.—To 14 cups of flour, add one cup of lard, four teaspoonsful of cream tartar and two of soda. Rub these ingredients well into the flour, add 3 cups of water, work thoroughly, and bake quick.

To Make Johnny-Cake.

Messrs. Tucker & Son—Having seen many valuable recipes in your paper, I will take the liberty to send you one that I have used for some years.

Recipe.—1 quart of milk.
2 eggs.
4 table-spoonfuls of wheat flour.
1 teaspoonful of salt.
1 do salaeratus.

Indian meal enough to make a thick batter. Butter and bake on a long tin, half an hour. Serve hot for tea, with butter and sugar. A Farmer's Wife.

French Chemical Soap,

For Removing Stains from Cloth.

Recipe—Fluid Styrax,
Sal Ammoniac, } each 1 drachm.
Oil Thyme,
Sal Tartar, 1 oz.
White Venitian soap, 4 oz.
Oil Bergamot, 4 drops.
Yolk of 4 eggs.

Shave the soap fine and pulverize the sal ammoniac, then mix all together; mould into balls or cakes. When applied to the cloth, wet the soap with water; after rubbing the stains several times, rinse off with a sponge and cold water. If not removed by the first application, repeat again. Having obtained the above valuable recipe during my late travels, I send it for the benefit of the correspondents of the Cultivator. H. E. L. *Greensborough, Md.*

Rose Culture.

If you wish to see your Roses do finely, you must, if the soil is poor, use plenty of manure. The rose is a very rich feeder, and in poor soils in this country but few of the best perpetual or monthly kinds will grow strong enough to flower more than once, or but poorly after the first flowering is over. In making new plantations the thing is easy enough; the ground should be dug deep, eighteen inches at least, and thoroughly rotten manure worked in abundantly before planting. Another thing too is to give them plenty of room to grow. In borders where they are already planted, work in two or three inches of rotten dung about their roots, taking away some of the poor top soil if necessary to make room for it. Street dirt and manure, well mixed up, is capital for roses, as they luxuriate in a gritty soil.

To secure good flowers from the perpetuals or monthlies, as soon as a flower is faded, cut it off, and occasionally treat them to a dose of manure water after midsummer. This stimulates them into fresh growth and flower. This, with copious waterings in all dry spells, will not fail to ensure roses in abundance. E. S.

Notes from Michigan.

Messrs. Tucker & Son—After the severity of such a winter as the past, (the thermometer ranging here from 18° to 30° below zero,) the return of the pleasant weather of spring, its green grass and flowers, the blue bird, robin, brown thrush, sending forth their happy notes, and the buds and blossoms just bursting into a new existence, must fill every one with love and gratitude to that all-wise Being who rules and watches over us, forming every thing for the interest of his creatures. That heart must be cold and torpid that is not able to enjoy these pleasures, and I truly pity those who are confined within the narrow walls of a city away from such happy heaven inspiring scenes as these.

We have had, since the retreat of *Jack Frost* and *Blanche Snow*,* about the 20th March, a succession of delightful spring weather, varied with showers sufficient to push everything forward and give it an early start. Most of our farmers have their oats sown, and are preparing to or plowing for corn. Wheat, considering the lateness at which it was sown last year (and also the bad seed, it being sprouted,) looks remarkably well and promises a fair crop. Rye looks fine and promises heavy crops. But we have one thing to mourn over, which is the loss of our peach orchards; nearly all the trees in this vicinity, both old and young, were killed by the severity of last winter. Some farmers have lost from 100 to 800 trees, and they can't replace them this year on account of the scarcity of means, and the loss of them in the nurseries. Potatoes also that were pitted, were mostly frozen and are spoilt.

But I have had something remarkable occur on my place this winter in the way of roots. I had about 100 bushels of ruta baga, which on account of illness and scarcity of labor last fall, I was unable to harvest, so they were left in the drills. This spring, after the snow left us, I took them up, and with the exception of a bushel or two, they were all sound, and those that I cooked were sweeter than those that were pitted. I have fed them for the past month to my horses, oxen and cows, and they have proved of inestimable value, more so at this season than in mid-winter when corn and fodder were abundant.

Now why would'nt it be well to leave them in the ground during the winter, and cover up with straw to protect them from the thawing effects of the sun, which is the only reason that they rot, freezing and then thawing, and then in the spring uncover and use them as you want them. I imagine that the method would pay well with the sheep farmer, to turn his sheep on them in the spring, instead of the cold barren pastures that they are generally turned into to gain a subsistence.

In regard to prices of produce, every thing is at a point of stagnation—wheat, 75 cents to $1--corn, 50 cents—oats, 31—potatoes, 31—apples, green, 50 cents, dry $1 50—parsnips and beets, 50 cents—ruta bagas, 18¾. Wm. F. Sands. *Jonesville.*

Culture and Value of Millet.

Believing that Millet may be included among our cultivated crops to great advantage, we add the following testimony in its favor, from a correspondent of the *Ohio Cultivator*, to what we have already published:

Having with many others suffered from the severe drouth of 1854, in my hay crop, I was induced last spring to procure half a bushel of millet seed. When preparing my ground for oats, I reserved one acre and a quarter for the millet. After corn planting, say about the 1st of June, I plowed the said ground again, harrowed it down, sowed my millet seed, harrowed thoroughly again, and quietly waited the result. Well, after a while the young sprouts made their appearance, looking very much like what is generally called pigeon grass. But after securing my wheat and oat harvests, I had a heavy crop to cut on my millet ground. Leaving a small piece which I sowed thinner than the rest to ripen for seed, I mowed the field, and cured it as clover should always be cured—in small cocks. When sufficiently dry, I carted *five heavy loads* to my barn, and my horses, cows and sheep have thanked me many times for my first experiment with millet. They have all eaten it readily and greedily, and I am so highly pleased with it, that I shall sow much more this spring.

The time for sowing should be as indicated above, when the weather is warm enough to make corn grow readily—from the 1st to the 15th of June—and the time of harvesting comes after the rush of other harvests is over, thus accommodating the farmer, at both periods when it wants attention. It yields seed bountifully, which makes a flour very palatable for man, and is decidedly nutritious for every animal and not forgetting the fowls—they are very fond of it. I say then to my brother farmers, try a piece of millet, and I am confident that if you try it once, you will again.

Box and other Edgings.

Young box stands the winter much better than that planted several years, besides which it looks slovenly to see a too stout edging, and takes away the beauty of small dwarf growing plants next to it. Now is a good time to do the planting. Many people ruin their box edgings, by allowing the flowers in summer to overrun it rather than cut them in. This keeps the shoots from ripening properly, and frosts destroy it when winter comes.

Many other plants look neat for edgings, as Thrift, Thyme, Pinks, or a dwarf growing Iris. In the absence of any of these, many of the annuals do well, especially by selecting such as continue a long time in flower. Of these may be enumerated, Mignonette, Phlox Drummondii, Portulacca, &c.

Another, and what is obtainable by all at trifling cost, is turf. This, when laid down level, from six inches to one foot wide and kept closely sheared down, forms one of the most pleasing borders of any. But except it is kept cut once a fortnight at least, it loses that beauty, and when allowed to get long has the most untidy look of anything. E. S.

Saving Flower Seeds.

In asking a lady acquaintance this morning for a few seeds of a rare plant she took much pains to show me last summer and extol its beauties and enlarge upon the difficulties she encountered in obtaining the seeds from a distant locality, I received the same answer I had upon former occasions, not only from her but from others—"I really meant to have saved some of those seeds, but I had no paper bags prepared, and I put off making them so long, the snow came on and I lost them all." Upon which I remarked, why don't you save all of the envelopes of the letters received by yourself and the family, and some leisure hour with your scissors cut them transversly through the middle, and with a single dash of a camel's hair brush dipped in gum arabic upon each half, you have two complete seed pockets from one envelop. You can make at least two hundred in fifteen minutes at a cost of half a cent a hundred. "Why didn't you tell me of that before? I'm sure I'll never be without seed pockets again."

Who among the lovers of beautiful flowers will let their seed go to waste for the want of paper seed pockets, when they can be had so easily and at such a trifling cost? Ulster.

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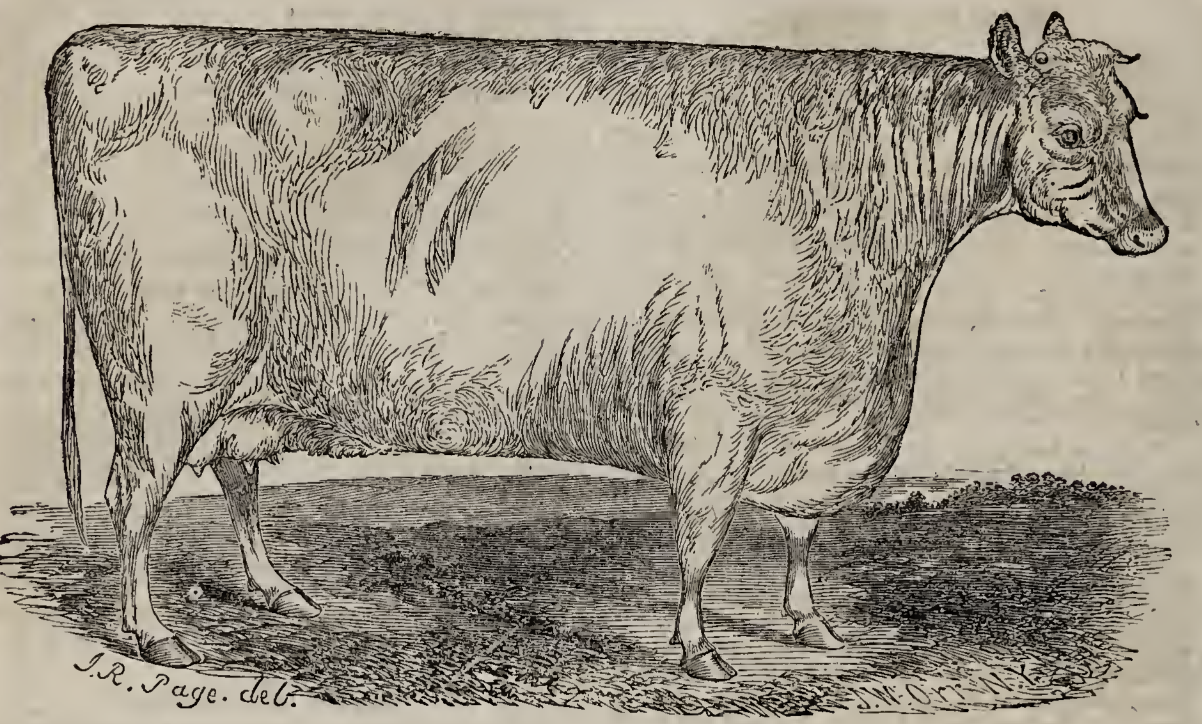
* I have given snow a female's name also on account of its color, and I don't see why its not appropriate as they always live and come together and seem very happy in each other's company.



Short-Horn Cow Duchess,

Winner of the 1st Prize at the Fair of the N. Y. Sate Ag. Society held at Elmira, 1855. Bred by and the property of S. P. Chapman, Mount Pleasant Farm, Clockville, Madison Co., N. Y. White; calved June 25th, 1849—Got by Duke of Wellington, (3654)—Dam [Matilda] by White Jacket, (5647)—gr. d. [Hart] bred by and imported into this country by the late Thomas Hollis, formerly of Blythe, England. (See Am. Hd. Book, Vol. 1, page 201.)

Gas Lime—Lime and Sorrel.

Editors of the Co. Gent.—In a late no. of the "Country Gentleman," it is stated that a correspondent of the Mark-Lane Express cautions the farmers to avoid the use of the refuse lime from gas-works, expressing his belief from experience, that "it will make fruitful land barren." On the other hand, it would appear that at New-Haven, Conn., gas lime sells a cent per bushel higher than common lime for agricultural purposes.

As you express a desire for further information from such of your readers as have used gas-lime, I will offer a few remarks. A fertile soil may be converted into a barren one, by using lime of any description to *excess;* and perhaps there is no farm land, which is sufficiently drained, and receives a full supply of barn-yard manure at stated periods, but what would be benefited more or less by an occasional dressing of lime. There may be soils that are naturally sufficiently calcareous without a direct application of lime, but mine is not of that description. I have used (I think to advantage,) some thousands of bushels of lime. In the summer of 1851, I purchased a boat load (2400 bushels,) from the Philadelphia gas-works, which cost me about 5 cents per bushel, delivered on the wharf most convenient to me, and about five miles from the land for which it was intended. This was about two cents per bushel less than slaked lime from the Schuylkill was selling for. During the autumn of that year, this lime was spread on fields then in grass, at the rate of about 30 bushels per acre. From that day to the present time I have never regretted the outlay, and as a part of one field was omitted, the difference in the growth of the clover was very observable, and such has been the case, to some extent, with the other succeeding crops.

At the time this lime was purchased there was quite a demand for it, so much so that there would have been a difficulty in getting the quantity I desired early in the seasons, as the farmers in the vicinity of the gas-works with their teams kept the supply pretty well exhausted, and I rather think this continues to be the case. I am not able to refer to any accurate experiments that would show the relative value of lime that has been used for purifying gas, and of lime of the same description (oyster shell) which has not been subjected to that process, but incline to the opinion that the difference, if any, is a very slight one. Farmers in general are about as shrewd and as calculating as other men--they are not more given, perhaps, than those of other professions, to spend their money for nought. My conclusion therefore is, that if the refuse lime from the gas-works "will make fruitful land barren," when applied in proper quantities, the Pennsylvania and New-Jersey farmers would have made the discovery for themselves before this.

I have stated that lime used to excess will convert a fertile soil into a barren one, but it would seem from what a correspondent of the Pittsfield Culturist [should have been Boston Cultivator] states, that *sorrel* will grow luxuriantly through a coating of lime about an inch thick! (See Co. Gent. p. 271.) Land, limed at that rate, if I mistake not, would require about a *boat load to the acre*, and the boat must be a large one too. There are animals and men possessing great powers of endurance, and there are soils that will bear a much heavier coat of lime than others; but I should not have thought that even sorrel, with a coat of lime an inch thick around it, would have survived such a dressing. But a thick coating of thoroughly rotted manure cured the evil most effectually, (that is killed the sorrel,) "not a blade of it appearing the next year." Well, if the manure killed the sorrel, the lime it would appear *did not kill the grass*, or prevent it from growing and taking possession of the soil—so that they may have acted well together after all—in a word, if manure will kill sorrel, it is the *safest* application a farmer can use.

I have seen fields however, that had been highly manured, producing fine crops of wheat and corn, and when these fields were seeded down with grass, the sorrel in a short time take possession, and sometimes to such an extent that they would scarcely be worth mowing. These fields, after having one or two dressings of lime and manured as formerly, would produce an abundant crop ef grass, and the sorrel disappear entirely. I have known a number of instances where this has been the case, on my own land and my neighbors'. I am not curious to know how the lime eradicates the sorrel—whether by neutralizing tho acid which some suppose abounds in soils favorable to its growth, or otherwise. I attribute it to the lime, from observing what has followed its use.

There are some farmers to be found, however, who perhaps depend too much on the use of lime in maintaining the fertility of their lands. They would like to substitute lime for barn-yard manure, and after selling off their hay, straw, &c., return a portion of the proceeds in that way. They may succeed in raising good crops a few years, but the soil must eventually deteriorate. In a general way, I think a *smaller quantity* of lime would pay better, especially after the first dressing, say about 40 or 50 bushels of slaked lime to the acre, and on the grass in preference to plowed land. C. *Salem County, N. J.*

Granulated Roots of Nursery Trees.

We have received an interesting communication of some length, from "A Nurseryman," on the subject of the excrescences or granulations upon the roots of apple trees while growing in the nursery. This communication indulges in severity on those who differ from the writer in opinion, and especially on Dr. FITCH, for expressing the belief that these excrescences are caused by an insect allied to the wooly aphis. Our correspondent says "they are mere granulations, caused by improper or unskillful grafting in the root. * * They are formed by allowing the lower end of the scion to extend beyond the cut of the root, so that as a matter of course, the descending sap, not having any conductor to the roots, granulates."

"A Nurseryman" indulges in censure on what he terms scientific men and theorists, and evidently regards *science* and *practice* as opposed to each other, at least in this instance. Now, on the contrary, Science is only the collection and condensation of all scattered FACTS and OBSERVATIONS, into a *system*—all else is quackery, and directly opposed to science. Practice with limited observation and without science, often itself leads to great errors, as all narrow and limited knowledge is apt to do. Our correspondent's remarks furnish a very obvious instance of this, for he depends on his own experiments, or on those alone similarly situated. Our own observations lead to conclusions diametrically opposite to his. We have raised many ten thousands of trees, both by budding and grafting; and out of hundreds of cases of these excrescences or granulations, more than nineteen-twentieths have been on budded trees, and they have been on the root from six inches to one foot below the inserted bud, and where there was no possibility of the action of the cause which he regards as producing the evil. He says "the cotton aphis never went under the ground voluntarily." Yet in hundreds of instances, where such injured trees have been taken up, the particular kind of "cotton aphis," which appears to cause them, has been found very conspicuously adhering to the bark several inches below the surface, and among the curves formed by the smaller roots.

Now if "unskillful grafting" is the cause of this evil, as our correspondent confidently asserts, why has it in nearly all cases under our observation, been confined to trees not grafted at all? And if the insect "never yet went voluntarily beneath the surface," how did such multitudes of them get further down than the earth was ever removed, until the tree was dug up? Our correspondent "hopes that Dr. Fitch will study his subject a little better, before he favors the public with a second report." We shall not quote these words as applicable to our correspondent; for at the same time that we state the different results at which we have arrived, we thank him for the frank expression of his views, and wish to obtain his assistance and of all other observers, in relation to all matters of importance in connection with successful cultivation.

Barry's "Fruit Garden," a work resulting from extensive observation, advances the same views substantially, as those of Dr. Fitch, and recommends nearly the same remedy, viz: A removal of the earth about the stem, and the application of a mixture of one part of soft soap, eight of water, and lime enough to make a thick whitewash, put on with a brush—or a solution of 2 lbs. of potash in 7 quarts of water—fresh earth being replaced.

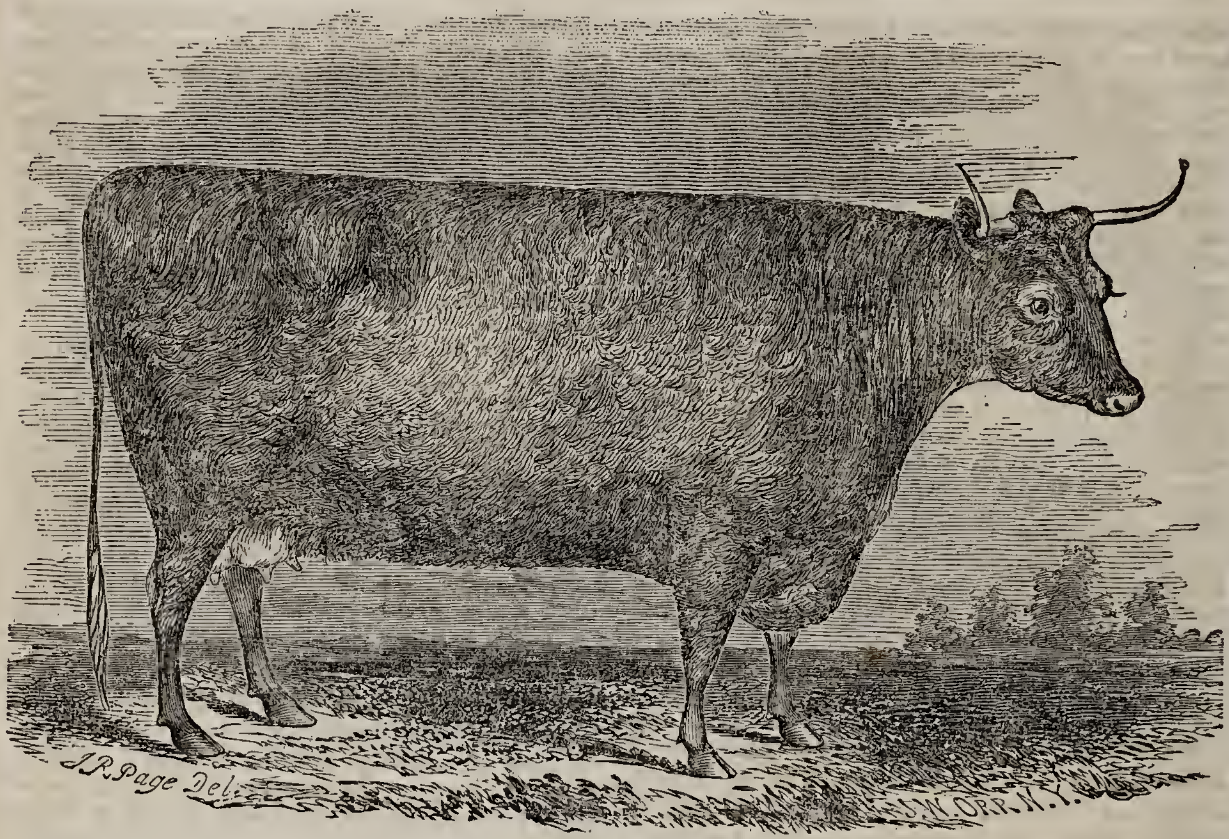
How to Tar Seed Corn.

Tarring seed corn I esteem an infallible remedy against crows and all kindred destroyers. None of them will eat it when properly prepared. Against wire-worms it is of no use. It is done thus, and with 20 years of experience it has not failed to come up properly with me, or to remain safe against the depredators; still if it is not well done it had better be not tried.

Have ready two iron or other vessels, say an iron pot of about one pailful, and a three-pail kettle, and tar and plaster at hand. Soak the seed corn in rain water, (fertilizers in steep are of no consequence,) as warm as the hand can bear, and set in a warm place ten to fifteen hours, not more, for in case of necessary delay in planting, the seed corn had better be prepared and then put by in the cellar, as it will not spoil, though it may sprout before planting. Put a large table-spoonful of tar with a pint of water in a small kettle, and heat till it boils. In the mean time put about three quarts of the soaked corn into the pot. Having the boiling tar ready, pour into it a little cold water to be sure it is not so hot as to kill the corn Pour this on the corn in the pot. Stir it thoroughly, and each kernel will seem to be coated with a thin skin of varnish. Put a bit of board on the pot, and turn it over, to drain all the water off. Throw a pint or more of dry plaster on the bottom of the larger kettle, throw in the corn, and stir it from top to bottom, adding more plaster as necessary, until all is dry and the grains separated, looking like little balls of hard, dry plaster. Two sticks are best to stir with, one for the tar and one for the plaster. Empty each batch as prepared, into a nail keg or other convenient vessel, and set in the cellar, taking out only enough for half a day's planting, so as not to expose it unnecessarily to the hot sun. No trouble will be found in handling it. LEVI J. HOPKINS. *Throopsville, N. Y.*

KICKING COLTS.—Mr. W. L. F. JONES, of Asbury, gives us the following mode of breaking colts of the bad habit of kicking;—Whenever a colt kicks he takes hold of the head and neck gently, by clapping his arm around and holding on to the nose until he ceases to struggle, patting him occasionally and speaking kind words to him. By doing this a few times, he says the worst case can be cured.—*Prairie Farmer.*

CLEAN FARM.—Mr. A. ROGERS writes to the *Ohio Farmer*, that it is less expense keeping a farm in nice order, than shabby and ragged, and adds:—"If any person will get elderberries enough on my farm of 93 acres, for one pie, I will give him five dollars, and the same for a gill of thistles, burdock or mullen." That is the right way to farm.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Devon Cow "Fairy." (696)

Imported by R. Linsley in 1852. For pedigree, see Davy's Herd Book, page 97, Vol. 2. Winner of the first prize for imported Devon Cows at the Connecticut State Fair in 1855. The property of LINSLEY BROTHERS, *West Meriden, Conn.*

Cultivation of Millet.

Hay is now selling in the Boston market for $30 per ton, and for the last few years it has been worth from $22 to $30 per ton. Under these circumstances, it is natural to inquire, what substitute can be found for this highly expensive article. One substitute which I would highly recommend, is *millet.* Last year I raised three tons of millet, on somewhat less than one acre of land. It was sown in May, and cut in August, while it was in blossom. On account of its great burden, more care is required in curing it; but when it is properly harvested, cattle eat it voraciously. The grass lands in Massachusetts, I am satisfied, do not yield, on an average, more than one ton of hay per acre; and if *three* tons of millet can be raised per acre, and with but a little more trouble and expense, it is surprising that farmers do not cultivate it much more extensively. It is cultivated in this state, only to a very limited extent. Probably three-fourths of the farmers of this commonwealth do not even know the article by sight, though they all "know beans." It is worthy of a much more extensive introduction, not only on account of the immense quantity which can be grown per acre, but because it can be successfully raised on all kinds of soils. It is a gross feeder, but as it derives much of its sustenance from the atmosphere, it is by no means, as some have supposed, a great exhauster of the land. When millet is grown for fodder, it should be sown very thick. The stalks will then be tenderer, more easily masticated, and more nutritious. Some of the stalks in my field last year, where it happened to be thinly sown, were more than six feet in height. They were too rank to be profitable. I am determined to put at least an acre or two into millet this spring. D. C. *Waltham, Mass.*

Premiums on Farms.

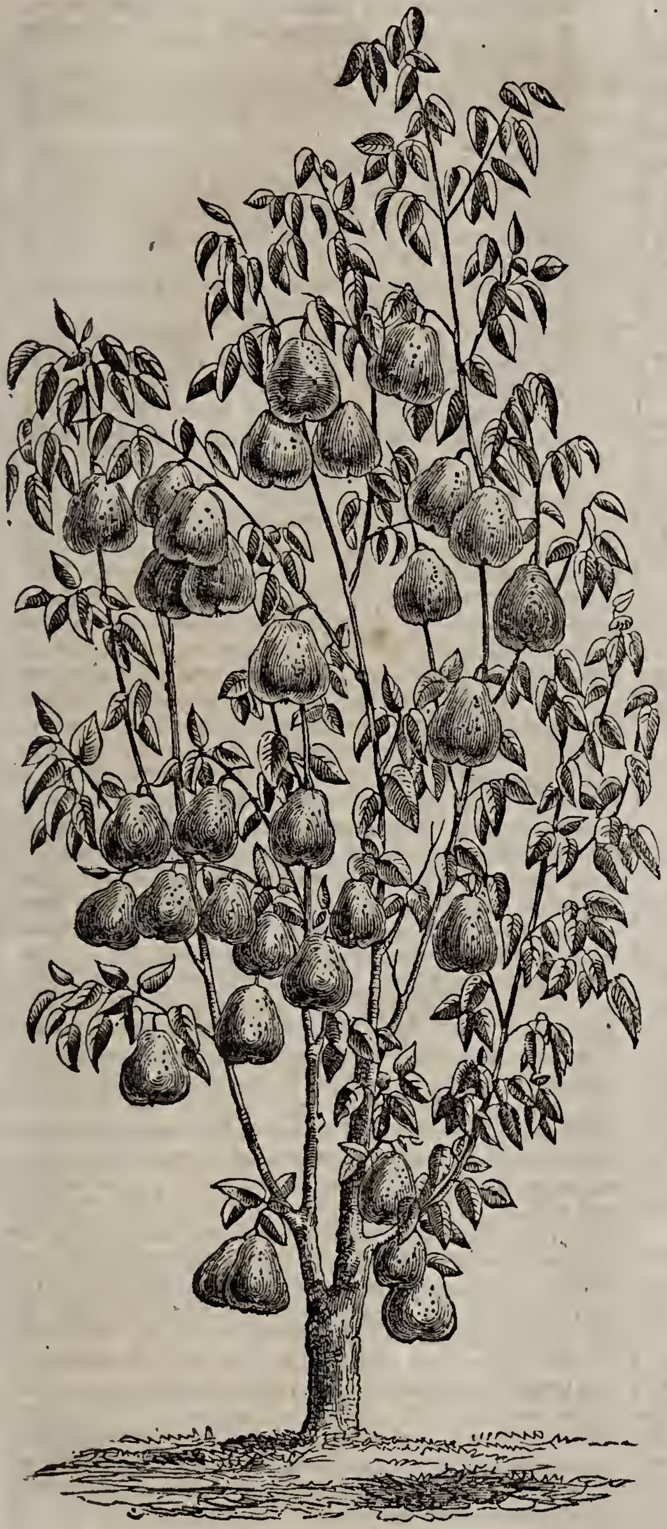
There is no part of the annual volume of the Transactions of our State Ag. Society, to which we look with so much interest as that of the Reports on the Prize-Farms; and we have often expressed our surprise that there should be so few applicants for these Premiums, the number seldom exceeding half a dozen from the whole state, while every county ought to be represented in this competition. All the extra labor and expense incurred in the work necessary to furnish the required Report, would be but trifling, and would be abundantly compensated by the benefit the farmer would derive from an exact knowledge thus obtained of the profit or loss on his own operations. We annex the Prizes offered for this year.

MANAGEMENT OF FARMS.

For the best cultivated farm of not less than fifty acres, mainly devoted to grain growing, exclusive of wood land and waste land, regard being had to the quantity and quality of produce, the manner and expense of cultivation, and the actual products: *Silver Plate*, value $50; 2d, $30.

For the best cultivated farm of not less than fifty acres, mainly devoted to grazing and dairying, exclusive of wood and waste land, regard being had to the quantity and quality of produce, the manner and expense of cultivation, and the management and feeding of stock and of conducting the dairy, and the actual products: *Silver Plate*, value $50; 2d do, $30.

The persons making application for the premiums must submit written answers to certain questions which will be furnished on application to the secretary; and to all who furnish full answers to the questions, premiums will be given, consisting of single volumes of the Transactions of the State Society, or sets of those volumes, according to the value of such reports.



Dwarf Pear Trees.

The above is a representation of a Duchess d'Angouleme Pear tree, as it appeared on the 18th of October last, on the premises of Mr. J. J. Smith, the present editor of *The Horticulturist*, from the December no. of which it is copied. Mr. Smith says this tree, and several others exhibiting equally prolific bearing, was purchased four years ago, and was then one year old from the graft.

◆

Budding.—It has occurred to me that it would be an improvement in budding apples, pears, &c., especially in a dry time, to cover the new bud *all up*. I think they would be more sure to take. Have any of your readers ever tried the experiment? L. B.

Improved Dairy Apparatus.

Messrs. Editors—I perceive that you have taken up the subject of the Dairy in a late number of your paper, and I also notice several rival statements during the past few weeks in regard to the produce of several eastern dairies.

Now, no one of our eastern fathers will for a moment entertain the notion that any of their boys, away out here in the western woods, can at all compete with the 'old folks' back east; but if they will listen for a few moments, perhaps they will come to the conclusion that we have yet something out here besides *woods without any timber*.

On wild feed alone, from 5 cows and 5 heifers—10 head in all—of the common scrub stock of the country, picked up within one mile of home last spring, your "Hawk Eye" correspondent and his "better half," have made and sold butter, cheese and milk, to the amount of $401.21, besides supplying the family, which has averaged 5 persons—$10 of the amount is from milk; the balance butter and cheese. Now havn't we "showed the biggest calf?" I think so, *all things considered*. Iowa to-day presents to the dairyman and stock grower as good inducements in my opinion, as any other State in the Union, and far superior to most of them.

In reading the article in your last Annual Register, on the Dairy, I was reminded of a purpose some time ago formed, of presenting to your readers a plan and description of an "Improved Dairy Apparatus," introduced by myself into the Western Reserve, eight years ago this coming spring. An account of it was furnished to and published in the "Ohio Farmer," in the spring of 1852, which I clip for your use, if you deem it worthy. This apparatus was the successful result of various unsuccessful experiments with steam and other fixtures, undertaken with a view to lighten the labors of a much loved mother, possessed of a rather delicate constitution; and here I will take occasion to say that after the new fixtures were in operation she used often to remark that she would rather make the cheese from 30 cows than do the work of a small family. How many of the mothers and grand-mothers of New-England, think you, have been brought to premature old age or the grave, over the clumsy, awkward, lifting, back-breaking health-ruining tubs and kettles that have been their inheritance from time immemorial.

The general impression is that dairying is necessarily a laborious business, and so it used to be; but need not be so now.

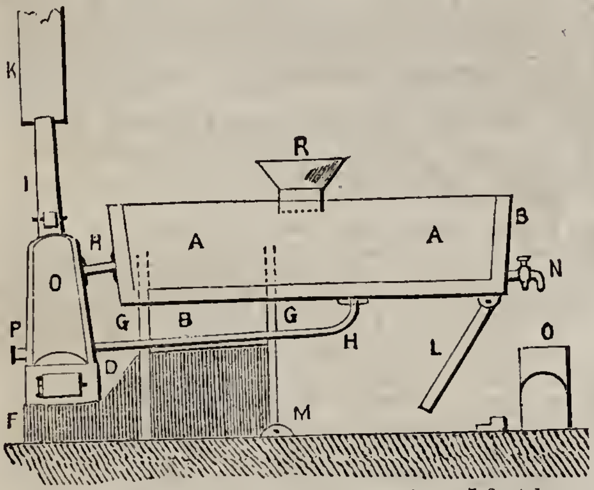
Even in Old England they seem to be as much behind the times as ever, and the journals of our fast country every now and then, for the want of something better, are publishing some old account of the way to make "Stilton" or "Cheshire" cheese, as though we could make just such cheese here. As to neat, tasteful, scientific methods of manufacturing, we can beat them bad, and if they like their own cheese the best, deeming it of better quality, it is the result of peculiarities of *soil*, *grasses*, *climate*, *or age*, *or all combined*—not of manufacture. Just think of keeping cheese till it is two or three years old in America!! Why out west here, we do well if we can hold on to it *two or three weeks*. A retailer along the Mississippi river, would have to keep an old cheese "a dog's age," if he keeps fresh cheese beside it.

But to return. The objections I have to the steam fixture described often in your paper, as well as to all others that I have seen, are—1st. They are cumbersome, taking up much room—2d. They are expensive in their first cost and maintainance afterward—3d. They are very noisy, and perhaps I might add that in the hands of most dairy-women not perfectly safe.

After much and patient investigation, I am satisfied that for *cheapness*, *convenience*, *adaptotion to the wants of the dairy*, *simplicity and durability*, the plan I send you has no superior. Since its introduction, hundreds have been manufactured and sold on the Reserve. I have, nor never had any interest in its sale. It is made and sold by B. P. Jamieson, Warren, Trumbull Co., Ohio.

I have a compliment for the York State dairymen, and will close. A gentleman of the Reserve, having business east, took occasion to visit some of the noted premium dairies of the state, and on his return I asked him what he thought of them?—"Why," said he, "they have some fine cows and good pastures, but for nice establishments the Reserve can beat them." Hawk Eye. *Keokuk, Iowa.*

After this rambling talk, I will now proceed to the drawing and descriptions referred to in the caption of this article, saying by the way, that if any dairyman can see anything in it suited to his wants he is perfectly welcome to the benefits of it. The sizes are adapted to a dairy of twenty or twenty-five cows, and the drawing represents a vertical section and side view.



A.A. Tin vat to hold the milk; dimensions, 5 feet long, 16 inches wide on the bottom, 14 do. deep, and a flare of 2 inches in length and breadth from the bottom to the top—a rim 2 inches wide around the upper edge for the purpose of fastening to the wooden vat.

B.B. Wooden vat, same shape as the tin, and made enough larger to leave a space of one inch on the sides and ends, and 1½ inch on the bottom, to hold water.

C. The heater—a copper cylinder within a cylinder, the outer one 2 inches larger in diameter than the inner, so as to leave a space of one inch all around, the ends connected so as to make this narrow space water tight. Dimensions inside—diameter at top 5 inches, at bottom 8, height 15 inches; this rests on a cast iron grate over the ash box (D) which is furnished with a door (E) to regulate the draft and remove ashes. This box is supported by a platform (F) which is made up of boards attached to the posts (GG) which are fastened to the wooden vat and constitute its support.

H.H. Copper pipes leading from the heater and fastened to the wooden vat by means of cast iron collars and bolts; the upper pipe to be inserted into the heater as near the top as possible, is about 6 inches long and 1½ in diameter—lower one same diameter, and should extend at least half way to the farther end of the wooden vat.

I. The draft pipe, 2 feet long, 5 inches diameter at bottom, 3½ at top, that it may play freely within the stationary pipe (K); it is furnished with a handle and a door to admit fuel and regulate the draft.

L. A swing leg, jointed to an axle made fast to the bottom of the wooden vat; this leg extends the whole width of the wooden vat, and when the vat is in the position represented it drops into blocks fastened to the floor.

M. An axle fastened to the floor to which the frame is fastened and on which the whole apparatus turns.

N. The whey gate through which the whey is drawn into the sink (O); a large sized molasses gate is the best—the sink should be furnished with two spouts, one for whey and one for water used in cleaning out the vat.

P. Water gate through which is drawn the water from the wooden vat and heater.

R. Is intended to represent a wide, flat-nosed funnel, for introducing the water into the wooden vat. Small strips of wood should be laid under the bottom of the vat to support it when the water is drawn out from the wooden one. Expense, all rigged for use, $25.

The method of using the above apparatus is as follows—at night the milk is strained directly into the tin vat—cold spring, well, or ice water, is poured into the wooden one, until the water rises sufficiently high to fill the heater, and surround the milk—this is ascertained by drawing a small cork from an aperture in the extreme top of the heater, made for the purpose of allowing the small quantity of air above the upper pipe to escape. In the morning the newly drawn milk is strained into the vat with the previous night's, and the whole is then warmed to prepare for the rennet. Charcoal is used for fuel. In the first place a shovel of coals is brought from the common fire and introduced into the heater, either through the door of the draft pipe or by removing it altogether; these fall upon the grate below, a few coals are added, the pipe is put in its place, the door closed, the *ash box door opened*, the draft is complete, and the heating commences. Those who are conversant with the simple philosophical principle of the rarity of heated fluids, will easily comprehend the operation of this heater. The fire, it will be perceived, is directly surrounded by a sheet of water only an inch in thickness, consequently it is very quickly heated, and having a tendency to rise, it passes through the short pipe at the top into the wooden vat; the cold water in the vat from its superior weight passes down the long pipe and enters the heater at the bottom; thus a circulation is commenced and kept up, until the whole mass is brought to the proper temperature. The farther end of the vat is affected almost simultaneously with the end next the heater—the heat from the water is easily communicated through the tin to the milk. When the heating has progressed far enough, the ash box door is closed, the draft pipe door opened, and the fire immediately dies out. It will be perceived that this heater operates on an entirely different plan from any "steam fixture"—there is no more pressure on it than on any open vessel of the same height; it does its business quietly, without noise, and as naturally as the blood circulates in a man's veins.

The only precaution is, *never have fire in it unless filled with water*, otherwise it will melt down. A thermometer should be used to ascertain the temperature, as no woman's finger is more uniform in its indications than *some old bachelors' tempers.*

After the curd is worked, and a portion of the whey drawn off, the heater is set in operation, until the curd is warmed to receive the salt;—the water is then drawn into a tub to be used in cleaning up, the swing leg (L) is tripped from under the whole apparatus turning on the axle (M,) the farther end of the vat is depressed to the whey sink, and the whey drawn off as rapidly as possible; this is a matter of great importance (the rapid abstraction of the whey at this point) and has not been as thoroughly provided for in any other fixture, to my knowledge; it also greatly facilitates the cleaning and drying of the vat. I have avoided giving any directions as to the detail of managing the milk further than was necessary to a proper understanding of the apparatus. I would, however, take the occasion to say that the communications of A. L. Fish, Esq., of Herkimer, N. Y., on this subject, possess more value as guides than any thing I have ever seen. You inquire as to presses. I have but a few words to say, as my experience in this matter has been principally confined to selection. I have seen a great variety of presses but have never seen but one that I considered perfect in every respect, that is, "Kendal's Compound Lever Press." The whole brood of self pressers I consider bastards, inferior to the old fashioned under-the-corner-of-the-house press, and about as rational in principle as for a man to undertake to lift himself over a fence by the seat of his "inexpressibles." Kendal's is right, but I know men who consider $14.00 too much money to pay for a press.

Fruits for the South.

If it will not be asking too much, I would be very much pleased for you to inform me of what ten kinds of winter apples will succeed best in Mississippi—what ten varieties of pears, both summer and winter—also what ten varieties of cherries. I allude to northern varieties. It is not difficult to have a fine supply of summer and fall apples here, but I find it quite difficult to get a true winter-keeping apple grown here, so far as my trials have extended with them. Our nurserymen here say that fruit trees grown in Northern and Eastern nurseries will not succeed well here; whether or no this is correct, I am not prepared to say. If you are posted on this subject please enlighten us upon it and greatly oblige MANY SOUTHERNERS. *Byhalia, Miss.*

The northern summer and early autumn apples mostly do well at the South, but our best winter apples ripen so early as to become summer and autumn fruits there, and lose much of their high quality, dropping early from the tree. We are not aware that any northern sorts except the Rawle's Janet and Limbertwig, have proved good winter apples there. Southern varieties must be sought for this purpose, and we would recommend our correspondent to examine the list published in the new work on *Gardening for the South*, by WM. N. WHITE, of Athens, Georgia, which affords much valuable information on this and kindred subjects.

The pears known as the best at the north, nearly all succeed in the Southern States, and undergo less change in quality and time of ripening than apples. The following have proved valuable at the South: *For summer*—Madeleine, Bloodgood, Stevens' Genesee, Seckel, White Doyenne, and Belle Lucrative. *Autumn*—Beurre Bosc, Glout Morceau, Beurre d'Aremberg, Winter Nelis. *Winter*—Easter Beurre. The latter has been kept nearly till spring; and the Glout Morceau a month into winter. White Doyenne and Belle Lucrative, continue their ripening into early autumn, especially the former.

Among the cherries, the Dukes and Morelloes succeed best in the warmer portions of the Union. None does better than the *May Duke*—to which may be added the Early Richmond or Kentish, the English Morello, Plumstone Morello, Belle Magnifique, and Reine Hortense. Of the Heart cherries, the Elton, Black Heart, and Downer's Red, appear to be the best. They ripen about five or six weeks sooner than in the State of New-York.

Any of these sorts will do well if the trees taken from the north are of small size when removed. These soon suit themselves to the long heat of the sun's rays. If large trees are taken, the bark is apt to be injured by the hot sun.

Sheep Shearing Festival at Middlebury, Vt.

MESSRS. EDITORS—Having seen a notice in the Ohio Farmer, from a gentleman in Jefferson county, that he would shear the Silesian Sheep for dollars and cents against any breed in the United States, I was induced to advertise through the Agricultural papers West, that I would shear thirty ewe lambs dropped last March, against an equal number of any one man's raising in the world, for quantity and quality, unwashed or cleansed, or for dollars and cents, according to live weight, every man keeping his sheep as well as he pleases. Now I propose, in compliance with what I have published, to hold this Sheep Shearing Festival at Middlebury, on the 17th and 18th days of June next, commencing at 10 o'clock in the morning of the 17th. The first day will be devoted to the shearing of sheep. The second day will be devoted to a general exhibition of horses; also, there will be purses offered for the fastest time made by trotting horses. Also, there will be an exhibition of ladies and gentlemen's horsemanship, to be held on the Fair ground near the village. Also, at the close, a Sheep Shearing Festival Ball, to be held at the Addison House, Middlebury.

Now, one and all are invited to attend, and have a good time. All papers will please confer the favor to give notice throughout the land, and oblige A. L. BINGHAM. *West Cornwall, Vt., April* 7, 1856.

Remedy for Girdled Trees.

MESSRS. EDITORS—As it has been a good winter for mice to work at fruit trees, on account of the snow, I wish to make known a remedy. In March, 1855, as the snow was going off, I found four of my apple trees completely girdled by the mice nearly a foot from the ground. I took a shovel and made a mound of dirt around two of them. Last fall I dug down and found them well barked over. One of them bore several apples; both are doing well. The other two are both dead. They should be seen to before they are seasoned. A. H. H. *Berlin, Mich.*

How to Save Fruit Trees injured by Mice.

E. M. BRADLEY, Esq., of East Bloomfield, in a letter to the Rochester Democrat, says:

I noticed in your paper of to-day, an article copied from the Buffalo Express, relative to damage sustained by mice eating the bark from young fruit trees during the late severe winter; and stating that individuals have suffered from $800 to $1000 each from this cause alone. I write for the purpose of suggesting to all who may have suffered in this way, that if they will take the trouble to protect the injured part of the tree from the air, that in nine cases out of ten the tree will thrive and show but very little injury from the wound. A very economical and expeditious method of accomplishing this is to take a dish of grafting wax, kept sufficiently warm to spread easily, and apply to the wounded part with a common paint brush, and pressing on to this a small piece of white wrapping paper or cotton cloth, to keep the wax from running when the sun shines upon it. Pieces of tarred or waxed cloth tied tightly about the wounded part will effect the same end, but the former method is cheaper and more easily applied.

I have in this way saved many valuable trees that had been badly eaten, and any one not acquainted with the process would be surprised to see how many trees could be saved in this way in a single day. A single man will dress from two to four hundred trees in one day in the above manner, with his material conveniently prepared, and at a very trifling expense.

Extracts from Correspondence.

Splitting Boulders.—First clean away around the stone you wish to split, that it may rest only on the under side. Then build a fire over the center of the stone from the earth on one side and to the earth on the other, about one foot in width, and keep it so confined by green sticks of wood or loose stones or sods, whichever is most convenient. Let the first fire burn entirely out. Then take your crowbar and take off the scales which will easily separate from the rock. Then build the second fire as before, and keep it well supplied with good dry wood, (a free but not a fierce wind the best time;) near evening the heat has, I think, the most powerful effect. When the fire is well a-going, you will to your astonishment hear a peculiar small noise in the rock, and then the fissure in the rock is commenced; the fire is to be continued until the rock is easily separated by a wedge or a bar. I broke a rock to pieces in this manner, with a few refuse rails and a small amount of maple wood, that made five pieces so large that it took two yoke of oxen to roll them from the center to the side of the road, and three stone-boat loads of smaller pieces. G. R. Smith. *Greig, N. Y.*

Osage Orange Seed.—The seed of the Osage Orange, (Bois de arc, Maclura,) has become quite an article of traffic in some parts of the South-West. Separating the seed from the "oranges," is a tedious, irksome job, but the labor is much facilitated by *boiling*. Some traders refuse to purchase boiled seed, yet more or less of it has doubtless found its way to market. Having a wagon load or so of the balls lying under the trees in my yard, I will boil out and enclose some seed, that you may test their vitality, &c. Pottage a la Maclura being, I suspect, rather more expensive a luxury for Albanians than Osages.

I have no means of knowing how much boiled seed has been sent to market the past year; yet I thought it might be well to put seedsmen on their guard.

I believe the Maclura is *the* fence material for the prairies of the South-West, and, after experimenting for some years, intend to sow largely the coming season. Our chief trouble is from the gopher, (an animal resembling the mole,) which eats the roots of shrubbery, fruit trees, &c., to such an extent as to make it almost impossible to raise them. Yunessee. *Near Red River, Ark.*

The Cultivator in German.—A subscriber in Ontagamee Co., Wis., suggests that there are a very large number of Germans at the west who are anxious to become acquainted with our system of agriculture, and would be much benefitted by an edition of *The Cultivator* in their own language. He says that from 150 to 200 copies would be taken by those in his own immediate neighborhood, at whose request he writes, and adds that if he could use their language himself, he would "agree to send them on by the thousand."

Colza.—Last spring I received a small package of Colza seed from the Light-House Board—spring and fall Colza. I sowed the *spring*, with a hand drill, in rows 18 inches apart, on a piece of land about 30 feet by 50, and received about 8 quarts of seed. I offered Colza plants to my cattle from time to time during the grazing season. I thought they did *not* eat it as well as cabbage or turnip leaves. Being from home a while in autumn, the fall Colza did not get sown. I tell you about *my* Colza because I have not heard of any other being raised in this vicinity—indeed I have *heard* of none in Vermont, though I dare say there were others experimenting with it. B. F. S. *Barnet, Vt.*

Effects of the Winter.—Extract of a letter from Warren County, Ohio, 4 mo., 18th:—"Winter has at length left us. He staid long, and tightly did he hold his grasp. From the 25th of 12 mo. to about the 9th of this, snow was to be seen, and through 3d mo. was near 15 inches deep in the woods. The thermometers in this vicinity were said to range from 20° to 26° below zero on the 9th of 1st mo., and on the 10th at 19° to 24°. About two weeks later, from 19° to 27°, and on the 10th of 3d mo. at 6°. Wheat now promises well, and neat cattle also look much better than when the winter is wet and changeable. The rape which I sowed in the fall, was pretty much killed by a freeze about the first of this month, after the snow had melted from it. Apple trees do not appear to be injured, and some of the peach have escaped. Currants, raspberries, &c., appear to be injured in the stock, but the roots are safe. Budded peach trees are killed, unless where the bud was below the snow line."

Produce of One Potato.—Mr. J. R. Smith of Hawleyville, Ct., informs us that he raised 10 lbs. 6 ozs. from a single potato about the size of a hen's egg. He dug a hole about the size of a bushel basket, put in half a bushel sheep manure, and thoroughly mixed it with the soil taken out, and in this the potato was planted. It was of the kind known as Canada Red or Sand Lake—(known also as Western Red and Peach Blow.) In 1854 he raised of the same variety, 13½ bushels from half a bushel of seed.

Spliting Boulders.—I have had considerable experience in spliting boulders or rocks, and I think the best plan is to dig around the stone of sufficient depth to be enabled to get nearly as low as the stone reaches. Then build your fire of dry wood in a line with the direction you want it to break, over across the stone. Let the fire burn down. Take your bar and see if there is not a crack which will soon open by the repeated blows of the bar. If one fire does not succeed try another until it will. As a general thing the first fire will do. The quicker the fire the better. The theory is to heat it very hot and sudden, while each side is cold. I have thrown on water, but find it of no benefit. An Old Subscriber. *Stephentown, N. Y.*

The Annual Register.—A correspondent of the *Granite Farmer*, seems much pleased with your "Register of Rural Affairs," and I think he may well be. Let me give you an item of my own experience. A short time since I wanted some directions relating to our gardening interests, and was advised to send to New-York for a certain book, which was to fully enlighten me on the subject. I accordingly sent $1.50, and got the book. I read it and re-read it, but still I was in the dark. At length your Register for 1856, came to hand, and, besides a large amount of other valuable information, I found in it the very directions I had sought for in my book. I had paid $1.50 for the desired information and found it not; but when I paid but one-sixth part of that amount for your little Annual, I got what I wanted. M. F. *Root, Mont. Co.*

Cobs for Fuel.—Are people generally aware of the high value of cobs as fuel? I think not. I have just learned by experience that cobs, when placed in an ordinary stove, are capable of giving out the most intense heat. I think they may be used in this way to great advantage, instead of being thrown out as worthless. If any one has a doubt with regard to this, let him put in his stove a peck or so of cobs, with two or three sticks of wood—green wood if you please, and learn the result. He will be surprised. S. Parsons. *Franklin, N. Y.*

Wind Mills.—Mr. Nutting's new wind power, described by him in your papers, resembles in some respects, the one I invented and put in successful operation nine years ago, as numbers can testify who saw it in operation, cutting wood with a crosscut saw. It was constructed with a central upright shaft, to which were fastened near the upper end, in pairs, horizontal arms, 16 feet long. Near the outer ends of these, board sails are attached, with hinges so that when the sails on one side are broadside to the wind, those on the opposite are always edge to the wind. You can use 4, 6, or 8 pair of arms as you like and sails to match. John Porter. P. S. Since making the above I have made some important improvements which I shall make public at some other time. *Fredonia, N. Y.*

Protecting Seed Corn.—Your correspondent, H. H B., seems to differ with me in regard to crows, "pigs and chickens," without so much as giving my method a fair trial. I hope it will not deter others from doing so, for sure New-York pigs and chickens must be very unlike those on "Cream Hill," if they do not feel inclined to take matters too easy to *root* or *scratch*, after eating a full supply. It must be he has not "the improved breeds." As for his crows, they must be different, *sartin!* Won't die by eating strychnia! I guess he has fed them on tarred corn so much that it does not take effect. Now, friend H. H. B., before you denounce my advice *too* hard, just try it, and if your pigs do not lay down and sleep and grow fat, your hens go to laying eggs, and your crows "kick the bucket," then, until I have killed another forty crows, I will not subscribe myself Cream Hill. *Rutland, Vt.*

Pigs in Barn-Yards.—In recommendations about barns, it has been proposed by writers in the Co. Gent., to let the pigs have free access to the manure. Is it not injurious to them? Pigs will devour much of the horse manure and will pick up hen manure as greedily as corn, and from our knowledge hereaway, with deleterious effect. This is the testimony of our best pork raisers, and is of some moment. R. H. *Warren Co., O.*

Colza or Rape.—I received from the Light House Board, samples of Colza or rape and sowed some in the spring broadcast, and found it to yield much excellent forage in the fall, but no sign of seed. I likewise sowed some in the fall, too late I fear. How it will do I cannot say, but the grasshoppers seemed to think it of great value, so that when frost came there was but a small portion left standing. R. H. *Warren Co., O.*

A Good Suggestion.—A correspondent, after alluding to the various statements of the products of dairies in different sections of the country which have been published in this paper during the last few months, says—"I would recommend to all dairymen to keep a correct account with their dairies for their own and other's benefit. It would lead to more care and greater exertion, and to a more spirited and profitable competition."

The Spring on Long Island.—Extract of a letter from Suffolk Co., dated May 7th: "The spring is very backward; none of the trees are in bloom yet, but from appearances we shall have a great abundance of cherries. Our strawberry vines never looked better. The winter grain, I find, much to my surprise, greatly damaged by the severity of the winter. In many places it is almost entirely killed. Oats are up and looking finely; also grass is growing finely, so that we may expect an abundant hay crop this season."

Minnesota.—Extract of a letter from St. Pauls, dated May 1—"We have lost a great many of our fruit trees during the past winter. I will endeavor to give you the names of such as have stood the winter well. There are some pears and cherries, a *few* plums, and a great many apples left. I now see, what I had before doubted, that we *can* raise fruit here."

Mr. Fenn's Wind Power.—The cheap Wind Power, of which I wrote you a short time since, (see Co. Gent. vol. 7, p. 218,) has been tested as to its self-regulating properties. It was set to work, (raising water,) on the day that the tornado swept over Alliance, Alleghany, Philadelphia and other places, doing so much damage. We were in the edge of the tornado; the wind blew violently for a short time, and our now untried machine had a fine opportunity to show how it would act in a gale. The result was very gratifying.

We are now able to state that a sudden, furious blast, which would tear a common wind-mill to pieces, will endanger no part of this, when rightly constructed. Its motion will not be in proportion to the force of the wind, and it is safest when left to take care of itself. The trial was just such as we could have desired, and has settled the point that the Cheap New Wind Power has perfect ability to regulate its own motions in a furious wind. Benjamin Fenn. *Hartford, Trumbull Co., Ohio, April 29, 1856.*

Notices of New Books.

The Flower Garden; or Breck's Book of Flowers, in which are described all the various Herbaceous Perennials, Annuals, Shrubbery Plants, and Evergreen Trees, desirable for Ornamental purposes, with directions for their Cultivation. By Joseph Breck. New Edition, Revised and Enlarged. Boston: John P. Jewett & Co.

Of the contents of this very excellent work, the title-page above quoted will convey a very good idea. Mr. Breck is well qualified for the task he has undertaken—his treatise having enjoyed general approval as the best fitted for this latitude, since its first appearance five or six years ago,—and being now enlarged by the addition of an appendix on Parlor and Bedding-out plants, and revised throughout to render it more perfect, so far as additional experience could be of avail to this end. Its typographical execution is also improved, so that it forms a handsome as well as valuable book. There is no better or more complete guide to the flower garden to be had, of its price and kind.

Gardening for the South; by Wm. N. White, of Athens, Georgia. New-York: Saxton & Co.

This is a valuable treatise. Its author has been long known through various journals, by his useful and reliable communications on Southern horticulture. He has now embodied his experience, together with that of several other skilful and distinguished southern cultivators, in the book before us, which is a duodecimo of 400 pages. A considerable portion of it is however compiled and condensed from standard European and American authors, for which he gives only general credit. We are much pleased with the judgment and good sense he has evinced in most instances, in treating the various branches of his subject. He has furnished analyses of the more important crops, "both to gratify a rational curiosity, and to assist those who wish to experiment in special manures—which," he judiciously remarks, "should be very cautiously ventured upon in the present state of our knowledge."

The subject of the culture of fruit, which occupies about 100 pages, we regard as much the most interesting and valuable part of the volume, and it cannot fail to prove of eminent utility to all fruit raisers in the southern states, pointing out, as it does, the results of experiments on our northern varieties, and naming those that fail, as well as the successful kinds. It also contains descriptions of many sorts of southern origin. On the whole, we regard this book as an important addition to our list of American works on Horticulture.

Sugar Consumption, &c.—By means of accurate official and statistical returns it is found the consumption of sugar varies very much in different countries. In France, for example, it appears from the official returns of home manufactures and foreign imports that the consumption of sugar by each individual in France, taking the population at 36,000,000, is only 9 lbs., while according to the returns relating to the home consumption in the United Kingdom of Great Britain and Ireland, it is 30 lbs. per head, taking the population at 28,000,000. After making allowance for certain classes of the population and districts of country where but little is used, it is thought that the average consumption with families above a state of poverty will amount to 40 lbs. per head. This is by far the largest consumption of sugar in any European country. The large consumption of wine and oil will in part explain the small consumption of sugar in France. It is also greatly restricted by the high duties levied on all home, colonial and foreign sugars, which are much higher—about 30 per cent higher—than in Great Britain.

Inquiries and Answers.

Coal Ashes, Pear on Apple Stocks, &c.—I would like to make the inquiry, whether coal ashes are of any value as a manure to apply to garden soil? If they are, what crops will they benefit most?—2d, How will it answer to graft the pear on young apple stocks? and 3d, Which is the best kind of potato to plant on Long Island? W. *Ravenswood, L. I.* [Coal ashes are not found to be of much value generally as a fertilizer. Unlike wood ashes, they contain but little potash. They consist mostly of earthy materials, and some sulphate of lime or gypsum. The latter appears to be the chief ingredient of value, producing in some instances, where gypsum is needed, decided results. The pear will not do well on apple stocks—but few grafts taking, or if they take they do not grow more than a year or two; and not forming a strong union, they are easily broken off. There are, however, a few pears that sometimes grow well for a time on the apple, particularly the Winkfield, Seckel, Summer Bonchretien, &c. Will some Long Island farmer answer the 3d query?]

Planting Grape Seed.—Is it essential in planting grape seeds, in the spring, to scald them? If so, how much scalding will they bear? A Subscriber. [Grape seeds, kept moist from the first, like cherry stones, in moist sand or soil, and subjected to the same treatment as cherry or apple seed, will grow without scalding. If allowed to become thoroughly dry, they may need alternate scalding and freezing, a few times. The water may be nearly boiling, provided the quantity is small, so that it will cool in a few seconds.]

Clover.—How many kinds of red clover are there? A. H. H. [There are two principal varieties of the Red Clover, the large and the small—although there is a tendency at every seeding to vary more or less, and imperceptibly, from these.]

Heaves in Horses.—Allow me to inquire through the numerous subscribers of the "Country Gentleman," if that "plaguey malady," the heaves in horses, especially in its early stages, and where but slightly affected, can be cured? Also the best method of feeding and treating, and what can be done to alleviate the disease, if it cannot be cured. I would be thankful for an early reply. E. R. Brown. *Delaware Co., N. Y.* [We shall be glad to hear from any one who can answer these inquiries. In the mean time, we would refer our correspondent to our *Annual Register* for 1855, p. 98, where he will find just the information he requires.]

Bitter Rot in Apples.—With me the Vandevere pippin has proved of late years totally worthless, the fruit being so affected with the bitter rot as not to leave a hundredth part fit to gather. It is the case here as well as in the orchard I left in Indiana. Is the bitter rot not the work of an insect? R. Hatton. *Waynesville, Ohio.* [The bitter rot is not caused by an insect—some apples are more liable than others—it appears to be increased by rich, moist soils. The "Vandevere pippin" we *do not regard as better than* second rate, and we should not greatly regret its loss.]

Lime-Kiln Ashes.—*J. F., Brooklyn, O.* The ashes from lime-kilns mixed with the refuse lime, would be a good application to almost any soil, but their exact value per bushel it would be a difficult matter to ascertain.

Sorrel.—My farm is uncommonly natural to the growth of sorrel. Now for some process to extricate from, or neutralize in the soil this production of acid. I have long waited for the old saying to come to pass, that sorrel would finally turn to white clover, but beginning to think it will not take place in my day, I would rather drive it from my premises and supply its place with red clover and timothy. G. R. Smith. *Greig, Lewis Co., N. Y.* [Lime has proved very efficacious in extirpating sorrel, in Virginia, according to Ruffin's Essay on Calcareous Manures; but it has failed to produce a like result in other places. We would recommend the application of lime or ashes in connection with good barn-yard manure, and would especially urge good, clean cultivation of the soil.

Making Currant Wine.—I am induced to address you relative to the manner of cultivating the currant, for the purposes of wine. Will you please state your views on this subject in your next paper. The best mode of raising the currant—the best kind of soil, and the probabilities of finding a market for the wine when made, are all matters upon which I would desire your views. A Subscriber. [Will our correspondent Dr. E. W. Sylvester, of Lyons, N. Y., who has had much practical experience in currant wine making, please furnish us an answer.]

Millet.—After many years' experience in the culture of Millet, we have come to the conclusion that the first week in June, with us, is the best time to sow it for hay or seed. If sown much sooner the weeds will get the start of it, as it will not grow but little till the weather gets warm. W. Dennis.

Worms in Dried Fruit.—I have attempted for several seasons, to keep a quantity of dried apples, peaches and other fruits, for summer use, but in every case have found them affected, and in come cases ruined by worms, and this in spite of all the precautions I have taken to guard against this annoyance. If any of your readers can give the information whereby this evil can be avoided in future, they will greatly oblige W. C. Healy. *Elk Co., Pa.*

Milk House.—Can you or any of your readers give me a good plan for a dairy or milk house? I have no spring but must supply it from a pump. I can only have two feet fall for the water to run off. How can I have it cool in summer and safe from frost in winter? Should it be built of wood or bricks? Should it be hollow and filled in with saw-dust? Can some good, practical Orange county dairyman help me? J. B. S. *Pittsburg, Pa.*

Potatoes.—Will potatoes planted on the same soil perpetually degenerate unless the seed is changed? An answer will much oblige. J. F.

Horse Distemper, &c.—Allow me, if you please, to inquire through your Country Gentleman, for a simple, effectual remedy, for cough in horses and for horse-distemper. I have a valuable one who had the distemper last spring, and has had a hacking cough since. E. R. B *Davenport, N. Y.*

Sweet Potatoes.—In reply to C., of Sandy Spring, Md., in regard to sweet potatoes, I would recommend him to forward 25 cents to Aaron H. Vestal, Cambridge City, Wayne Co., Indiana, for his work on the raising and keeping of Sweet Potatoes. I ate some in January at the residence of Gov. Wright, as fine as any I ever tasted, kept by Mr. Vestal's plan, which is simple, cheap, and will entirely secure against loss. He and others have kept them for two years. The whole plan is sketched in his book and deserves to be extensively known. Henry C. Vail.

Seeding.—I have a piece of low land, that I wish to seed down, and I wish to know if it would do to seed with buckwheat, as it will be drier by that time so that I could get it in better condition for a meadow. If you, or some of your correspondents, can inform me you will much oblige a new subscriber. G. H. *Oswego.*

Sheep Pulling Wool of Lambs.—While I am writing, I have one inquiry that I would wish to make. Some weeks ago I noticed that some of my lambs and one yearling, had begun to lose their wool about the hind legs and on the fore shoulder. This I could not account for until within a few days past, not seeing any wool in the yard where they run. On watching, I noticed the old sheep pulling the wool and eating it as they would hay. They seem to be in a healthy condition, and are in very good order. Now what is the cause of it? The lambs I have had to put by themselves. I have kept my sheep on oat straw, and for grains, corn and oats mixed. Up to the time I speak of, gave salt once in a while, and plenty of hard frozen apples, which they were quite fond of. Since then I have stopt feeding apples, and given salt and ashes and fine browse. Still they kept on just as bad until I took the lambs away. It is something myself or neighbors have not known before. E D. M. *Burdett, N. Y.*

Indian Millet or Doohra Corn—Oregon Pea.—If your correspondent, "P. W.,"will send me his address to Applebackville, Bucks Co., Pa., with a prepaid envelope, I will send him some of the seed of this plant. It has been grown here for some time, perhaps twenty years. It ripens its seed with us nearly every year—makes a large yield of stalks, of which cattle are very fond, and yields considerable seed, good for poultry, and if chopped makes good feed for stock. I will also send some of the Oregon Pea to your correspondent A. B., on the same terms. Wilson Dennis.

Cast-iron Chimney Caps.—A correspondent inquires if cast-iron chimney caps will attract lightning. *They will not*—because they form no continuous conducting current. They will not have any more influence than a metallic roof, (which has none at all,) and not nearly so much as the soot inside a chimney, which is a good conductor, and extending all the way down, is a prominent reason why chimneys are so often struck by lightning. A good lightning rod, high and sharp above, and deep in the earth below, will protect from danger in all cases.

Couve Tronchuda.—I have received from the patent Office, a paper of seed labelled "Couve Tronchuda," and shall be glad if you can enlighten me as to its use and cultivation. Tyro. [The Patent Office Report for 1854, describes it as a variety of "cabbage from Portugal, which does not head, but produces very large and tender leaf stalks. When cooked like sea-kale, it is esteemed by many as a delicious vegetable. Cultivation same as cabbage.]

Work on Draining.—Will you please state through the columns of the Country Gentleman, whether there is published a good reliable work on Drainage, and if so whose it is and where it can be obtained? S. ["Munn's Practical Land Drainer," is we believe, the only work on the subject published in this country. It can be had at this office—price 50 cents.]

Making Hard Soap.—Allow me, if you please, to inquire through the Country Gentleman, for a good and cheap receipt for making hard soap, for home use. J. C. G. *Johnson Co., Iowa.*

Trees Injured by Mice.—The mice have made sad havoc with nurseries and young orchards in this whole region as far as I can hear. Can you or any of your readers inform me of any preventive for the future? Will smearing the bodies with coal tar have the desired effect? J. H. Wright. *New-Haven, N. Y.*

Root's Two-horse Cultivator.—Can you inform me through the Cultivator, where F. P. Root's two-horse cultivator can be purchased. If you can you will confer a favor on several persons in this vicinity. We find that the Cultivators made after the old crotch drag fashion do not work as well as we would like them to, in most of our lands in this vicinity, which consist principally of black loam and clay knolls. Most of us threw away our cultivators as useless; but I chanced to see an implement manufactured by F. P. Root, which is just the thing for us. C. B. Booth. *Storrington, C. W.* [We believe this cultivator is manufactured in Monroe county, and it can probably be procured at the agricultural warehouses in Rochester.]

Warts on Horses.—Can some one inform me through the medium of your valuable paper, how to cure warts on horses? Those on my horse are about the size of a dollar, and perfectly level with the skin, and not the least hair has grown on them for the last two or three years. N. B. L. *Nassau, N. Y.* [For remedy for warts on horses, see Co. Gent., vol. 6, pages 285 and 333, or Cult. 1855, p. 372.]

Wakefield's Corn Planter.—In answer to the inquiries of your correspondent S. G. F., in your paper of May 1st, I would state that Wakefield's Corn Planter can be procured of Bigelow & Bean of Framingham, Mass., price $3.00. It is designed for planting corn, broom corn seeds, beans, and similar seeds, and is carried and used as a cane or walking stick; is adapted for planting in rocky and uneven ground, and in all kinds of soil. Is easily adjusted to plant at any desired depth, and to drop any required number of seeds. The method by which the seed is planted with this planter is new, and is believed possesses advantages over all others, not only in facility of use, but in hastening germination. The seed is forced by pressure obliquely from the surface of the ground to the required depth, thus insuring the immediate absorption of moisture, by bringing it into perfect and hard contact with the soil under and around it, while the earth falling loosely over, cannot obstruct the coming up and growth of the blade. The planter is simple in construction and not liable to get out of repair. It was used by some of the best farmers in this vicinity the last season, and gave universal satisfaction, and they recommend it to farmers in preference to any other corn planter in use. G. *Ashland, Mass.*

"Wakefield's Corn Planter," can be procured at retail for $5, in this place. Dudley Seward. *Akron, O.*

Butter.—You can tell "An Old Subscriber," that my wife says the reason the bûtter does not come, is because the milk and cream get *too sour.* H. L. B. *Fayette, Mo.*

Seed Corn.—I wish to make the following inquiry through your excellent paper, "The Cultivator." Is it profitable to roll corn in plaster before planting, and does it prevent its rotting? Rushton Smith. *Factoryville, N. Y.*

Trimming Osage Orange Hedges.—Among the advertisements of farming implements I have never seen any notice of a machine for trimming the Osage Orange hedge. Why cannot such a machine with cutters similar to the *reapers*, be constructed? I give this as a hint to the ingenious. Pelham.

Mexican Guano.—A correspondent of *The Homestead*, gives his experience with Mexican guano. He says:—"My brother and myself tried it on oats, grass, rye, turnips and potatoes; we put on oats from 300 to 600 lbs. to the acre, and upon grass, rye and turnips 300 lbs.; to potatoes we put a liberal handful in a hill, but I could see no benefit arising from the application. Some of our neighbors used it with the same effect. If nobody can truly say they have been benefited by the use of it I shall conclude it to be a humbug of home manufacture." This was probably a lot of guano similar to that which Mr. Shelton said the farmers would not buy "from its want of smell," and to which he was enabled, through the scientific attainments of Prof. Mapes, to impart the odor necessary to make it acceptable to those who rely upon the "smell" alone.

Sugar Making in Ireland.—The maufactory of beet root sugar at Mountmellick in Ireland, was at full work during the past winter, employing above 120 hands in the various processes. The article produced is said to be very good. Farmers get £1 (about $5) per ton for the roots. With this they can buy about 50 lbs. of good sugar, which would be about half of the whole amount got from a ton of roots, at the rate of 5 lbs. of sugar to 100 lbs. of roots, which is, we believe, a fair average yield.

☞ The *Pennsylvania State Fair* this year, is to be held at Pittsburgh, commencing Sept. 30.

Notes for the Month.

☞ All the preliminaries having been satisfactorily arranged, the question is settled that the New-York State Fair for this year will be held at Watertown, opening on the 30th of September. The farmers of Jefferson, Lewis, St. Lawrence, &c., will, we trust, be prepared to make as favorable an impression as did those of the southern counties at Elmira last autumn. If they will do this, which they can easily, they will satisfy the public, and have good cause for self-gratulation. We shall look for a much better exhibition of Dairy Cows and Butter and Cheese, than has ever before been made in the state.

☞ The Trustees of the New-York State Ag. College held a meeting in this city last week, and we are glad to learn that we may now reasonably anticipate that the Institution will soon be organized under circumstances every way favorable to its usefulness and permanence.

Horse Show in Wayne County.—The Wayne Co. Ag. Society are to hold an exhibition of Horses on their show grounds in Lyons, on the 5th and 6th of June next. The premium list amounts to $600, and the competition is open to the whole state. The proceedings are to close with "a grand agricultural soiree" at Floral Hall on the evening of the 6th. For premium lists and further information, address the President, D. W. C. Van Slyck, Esq., Lyons, or S. Lewis, Sec'y, at same place.

Great Sale of Improved Stock.—It will be seen by an advertisement in this paper (page 325) that Col. L. G. Morris of Mount Fordham, has determined to give up his breeding establishment, and that his entire herds of Short-Horn and Devon cattle, South Down Sheep, and Berkshire and Essex Swine, are to be sold at auction on the 24th and 25th of June. We confess that we make this announcement with regret. The establishment at Mount Fordham, had become a national institution, although founded by the judgment and munificence of an individual. We had looked upon it as, in a degree, a permanent institution, to which our breeders could at all times resort for supplies; but the Colonel has otherwise ordered, and his beautiful herds are to be sold, and dispersed throughout the land. The sale will be by far the most important, both in the number and value of the animals, that has ever occurred in this country, and will doubtless attract purchasers from all parts of the Union and the British Provinces. Having determined to give up the business because he finds it impracticable to continue it with satisfaction on a farm twelve miles distant from his residence, the sale will be positive and without reserve. The Catalogue will be ready about the 25th of this month, with full particulars.

The Peach Crop for 1856.—At Macedon, in Western New-York, and in many other portions of the western counties, the thermometer sunk 12° below zero, without destroying the fruit buds of the peach. The long continued and uniformly cold weather proved much more favorable than sudden alternations have done in other winters, by swelling or filling the buds with moisture.

A recent letter from David Thomas, of Union Springs, says, "Last winter I examined the peach buds and thought *one tenth* might be damaged. A month later, I again examined, and found nearly all safe. I tried again, and I thought *one half* were killed. I was not satisfied with this result, and when the weather became warmer, I resolved to investigate the mystery. I therefore went from tree to tree, and soon found all out. My puzzle was owing to one fact, which I had not known before: *Some varieties are much hardier than others.* On some, not a bud was injured—on others one half—but still enough left for a full crop."

A similar examination in some other places has confirmed this fact. At Macedon, the Serrate Early York, Early Tillotson, Fay's Early Ann, and George the Fourth, have lost from one third to one half their buds, while there is a loss of scarcely one in twenty on trees of Crawford's Early, which is perhaps our hardiest variety.

There are however enough fruit buds remaining uninjured on all these, for a most abundant crop of peaches, if no disaster befals them before maturity.

Sale of Short-Horns in Eegland.—The celebrated Fausley herd of Short-Horns, owned and mostly bred by Sir Charles Knightley, was sold at auction on the 3d of April. Seventy-seven head were sold—48 cows, heifers and heifer calves, and 29 bulls and bull calves. The females averaged nearly $415 each—the average of the males a little over $376 each—average of the whole 77 head, a fraction over $400. The prices were extraordinary the average prices never having been equalled except in the cases of the herds of Charles and Robert Collings and Lord Ducie. The papers state that "several of the best animals were bought for America;" and we notice by the list of purchasers, that Mr. Thorne of Duchess County, bought "Amaranth," a seven-year-old red cow for $600, and a yearling heifer from Amaranth, for $750—also "Blouzelind," a three-year-old heifer, for $400, and "Elgitha," a two-year-old heifer, for $500.

Spring Cattle Show of the Royal Dublin Society.—The *Irish Farmer's Gazette* of April 19, fills nearly 15 of its large pages with accounts of this exhibition, which was held at Dublin the previous week. It gives portraits of four of the prize Short-Horns, and among them that of the Short-Horn yearling heifer "*Lady Barryscourt*," bred by John Christy of Fort Union, to which was awarded the first prize in her class, and also the Townley Challenge Cup, of the value of $250. At a public sale of Mr. Christy's stock, the same week, this heifer was bought by Messrs. Smook and Marshall of Kentucky, and the Gazette expresses its regret that this fine animal should have been permitted to go out of the kingdom. These gentlemen also purchased at the same sale, three other "first-class animals—viz: Jenny Deans, Violet, and the bull Grisette." Mr. Christy appears to be one of the most successful of the Irish breeders, the Challenge Cup above alluded to having been awarded to him three years in succession on three different animals.

Devon Bull.—Capt. Joseph Hilton, of New-Scotland, has just purchased the beautiful Devon bull "Empire," which attracted so much attention while on exhibition at the Fair of the Albany County Ag. Society, last fall. "Empire," now four years old, was bred by the Messrs. Hurlbut of Winchester, Conn., and is a valuable addition to the stock of our county. He was sired by the imported bull Albert—[see English Herd Book, No. 2,]—dam Eliza, by Baltimore—grand dam, Fancy third—g. g. dam, Fancy second—g. g. g. dam, Fancy first—and Fancy first, from an imported cow.

Short-Horn Bull Echo of Oxford.—We learn that Mr. N. J. Becar has sold his superior prize bull, "Echo of Oxford," 12,821, (E. H. B.) to Mr. E. Marks of Camillus, Onondaga Co., whose neighbors are fortunate in having the privilege to use so valuable an animal. Pedigree of "Echo of Oxford," 12,821, E. H. B.—white, calved Jan. 25, 1854—bred by N. J. Becar—got by first prize bull Romeo, 13,619, E. H. B.—dam, first prize cow Oxford 13, by 3d Duke of York, 10,166—g. d., Oxford 5, by Duke of Northumberland, 1,940—g. g. d., Oxford 2d, by Short Tail, 2,621—g. g. g. d., Machem Cow by Machem, 2,281—g. g. g. g. d., by Young Wynard, 2,259. Oxford 13 has taken the first prize at N. Y. State Fair, and Romeo has taken the first prize at Fair of American Institute, the N. Y. State Fair, and at the National Fair at Boston.

Wheat Turning to Chess.—I see you offer $50 reward to any one who will will "produce occular demonstration that wheat will produce chess." I shall accept your offer in order to have that point settled. Is a spur of chess on a wheat head proof enough? H. A. P. *Allen's Hill, N. Y.* [No, sir. It is no proof of transmutation. We have seen many such heads; and if you have one which thus exhibits a spur of chess apparently growing in a head of wheat, you can convince yourself in two minutes that the chess was not produced by the wheat. All you have to do is carefully to bend down the chaff below where the chess makes its appearance, when you can trace the stem of chess to its *end*, showing that it is only held in the wheat head by pressure. It was entangled there during its growth, and thus became separated from its parent chess plant.

Curing Corn-Fodder.—The inquiry is over and over again repeated, how shall we cure corn-fodder without heating or moulding? In answer to the question of W. J. Pettee, the writer can state that he has raised corn-fodder in drills, (the best, cheapest, and cleanest way,) for tho past ten years, and has tried various ways of curing. Beginners are often deceived in one point. *They think the fodder perfectly dry when it is not.* Fodder sown early, so as to be cut before autumn, may have two or three weeks of hot weather for drying it; the leaves may be excessively crisp, but the stalks will be juicy inside; and this water or juice is sufficient to spoil any stack of stalks, when they settle compactly together in a large mass. We have often tried placing the stalks in large shocks in the field, and leaving them there till wanted in winter. This is safe, but is not the best way. All the outer stalks become weather-beaten, dry, and comparatively valueless—but it is much better than to let them spoil in stacks. If the shocks could be made quite large, and capped with rye straw, a decided improvement would doubtless be made. The best way would be to use the lofts over cattle sheds, by making the floor of the loft of poles placed several inches apart, and then depositing the stalks nearly vertically on these poles, in one thickness, or as closely together as they could be placed. The ventilation would be ample, and green stalks, or those cut late in autumn, would be safely and perfectly cured in this way. Long and cheap sheds, made for this purpose solely, would no doubt be profitable structures.

Next to this, the best way is to build small and numerous stacks, only large enough for single circular layers of bundles of fodder, placed with the tops to the center, and built up round an empty barrel (which is drawn up by a cross-handle as the stack progresses,) thus leaving a hole in the center for a chimney. If the stalks are *salted*, and are placed sloping upwards towards the chimney hole, no injurious heating will take place. There must, of course, be a thin straw cap placed over this hole to keep out heavy rains. The diameter of such stacks would be six or eight feet.

All this may be regarded as troublesome; but it is worth some trouble to find a good way to secure a kind of food, better than hay for cows *when well cured*, and yielding three or four times as much per acre, with very little labor in cultivation.

Protecting Corn from Crows.—Our experience accords exactly with that of "H. H. B." Nothing has ever yet proved equal to tarring the seed. A pint of tar will varnish beautifully a half bushel of seed, if the latter is first made *hot* by pouring on hot water for a few seconds, and drained off, and the tar then added, and the whole stirred rapidly.

Rhode-Island State Ag. Society.—The officers of this Society for this year are—President, Elisha Dyer, Providence. First Vice-President, Caleb Congdon, Cranston. Second Vice-President, Elisha R. Potter, Kingston. Third Vice-President, Oliver Angell, Providence. Secretary and Treasurer, William R. Staples, Providence. Audit and Finance Committee, John J. Stimson, Providence, Henry W. Lothrop, Providence, William Viall, Providence—together with a Standing Committee of thirty members.

Wheat Turning to Chess.—Mr. D. C. Brown, "a wealthy and respectable farmer of Fairfield, Iowa," calls upon us, through the *Iowa Farmer*, to "demonstrate that wheat will *not* change to cheat or chess." He might, with equal propriety, ask us to demonstrate that pigs will not change to sheep. The transmutation would be no more unnatural in the one case than the other. The Creator, with a wisdom beyond our comprehension, has impressed upon all his works a system of perfect order, from which the most minute can no more vary than the most stupendous. The same Infinite Wisdom which created and directs the revolutions of the planets, commanded that every plant bearing seed, should bring forth "fruit after its kind." No variation from this command has ever been proved. In every clime and in every age—no matter how long the seed has been kept, or how far it has been removed—(if its vitality has been preserved)—it has brought forth seed after its kind, whether it be wheat, chess, or some other kind. We think, therefore, that we may safely place our reliance for proof of our position, that wheat will not turn to chess, upon this unalterable law of the God of Nature, guaranteed as it is by the fiat of the Almighty and the unvarying course of nature from the time the command was first issued, "let the earth bring forth grass and herb yielding seed," to the present day. But this is not all. We have a more *practical* demonstration of the truth of our position, in the fact that chess can be as *entirely eradicated from a farm*, as Canada thistles or any other weed. This could not be true, if wheat produced chess. We might refer to many instances where this has been done; but one is sufficient, and we will only cite the case of our friend, Mr. John Johnston of Seneca county, an extensive wheat grower. Twenty years ago, he believed, as did most of the wheat-growers around him, that it was impossible to raise wheat without more or less chess with it, because he supposed the wheat produced the chess. On reading the discussion which took place at that time in our old Geneseé Farmer, he was led to test the question for himself. He says—"This controversy was entirely the cause of my finding out that wheat would not turn to chess. I picked five bushels of wheat by hand, sowed it on a patch that had been in potatoes two years in succession, and had no doubt but that I should get some chess, but I could not find even one stalk. Then, and not till then, did I believe that wheat could be raised without chess." Like a sensible and wise man, he lost no time in eradicating the chess plant from his farm, and having been careful from that time forward, that no chess was sowed with his wheat, it has ceased to grow on his farm, and he has thus demonstrated *practically* and *profitably*, that wheat will not turn to chess. What he has done, Mr. Brown of Iowa, or Mr. Anderson of Michigan, or any other farmer, may do, if he will. Will not these gentlemen follow the example set them by Mr. Johnston and multitudes of others, and thus convince themselves that wheat cannot be made to produce chess, and then come forward and help us eradicate this pernicious error from the minds of those who still cling to it? Will you do it, gentlemen, or will you admit that you cannot do what other farmers have done?

State Fairs.—The *Illinois* State Fair for this year, is to be held at Alton, commencing on the 30th of Sept. and continuing through the week. In *New-Jersey*, the State Fair is to be held at Newark, Sept. 10, 11, and 12.

Food of Animals.—Messrs. Saxton & Co., New-York, have just issued a new edition of Dr. Thomson's Experimental Researches on the Food of Animals, and the Fattening of Cattle,—a work which every grazier should own. By the way, we invite all our friends, when they visit New-York, to give these Agricultural Publishers a call at their new establishment, 140 Fulton street, where they will find all the most valuable works on rural subjects, both domestic and foreign.

Gas Lime.—A correspondent of the Mark-Lane Express, cautions farmers to avoid the use of the refuse lime from gas-works, expressing his belief, from experience, that "it will make fruitful land barren." On the other hand, it would appear from a communication recently published in this paper, that at New-Haven, Ct., gas-lime sells a cent per bushel higher than common lime for agricultural purposes. If any of our readers have used it, we should be glad to hear the results of their experience.

Ontario Co. Ag. Society.—We have received the List of Premiums of this Society for the present year. The pamphlet, besides the list of premiums, embraces the constitution, officers and life members, of which there are 307, made so by the payment of $10 each, together with a report of a committee appointed to devise plans for suitable buildings to be erected on the society's show grounds. We should be glad to publish this report at length, for the benefit of other societies, if the Secretary will forward us the engravings.

Preventing Vines from Bleeding.—The remedy of hard soap, applied to recently cut vines, to prevent the flow of sap, is quoted from the New-England Farmer. What is the occasion for this labor, when "bleeding" never injures vines? Some good cultivators, who have had ample experience, think that bleeding is a positive benefit.

Duchess Angouleme Pear.—The beautiful portrait of this magnificent pear reminds us of the opposite success its culture has met with. Some of the western pomological bodies have pronounced it *worthless.* A large orchardist in western New-York has set out several thousand trees of the Virgalieu or White Doyenné, and a considerable number of the Angouleme. They were both eight years from the bud last season. Both bore, and being a season unusually favoring the cracking of the fruit, the Virgalieus were nearly all ruined in this way. The Angoulemes bore well, some a bushel each, and all averaged over a half-bushel. They all sold in New-York city for *thirteen dollars per barrel.* The owner has since rebudded several hundred of his Virgalieus to Angoulemes!

Saving Mice-eaten Trees.—The remedy of grafting-wax will apply to such trees as are not eaten wholly round, or to such as have a film of inner bark remaining. In the latter instance especially, it is of great importance to prevent drying up. But where the girdling of the entire bark is complete, and the wood wholly bare, all round, the remedy described a few weeks since in this journal must be adopted.

Jackson Apple.—We are indebted to our friend Wilson Dennis of Bucks county, Pa., for scions of this seedling apple, which he informs us is esteemed as "very good," in Bucks Co., being in season from Jan. to June.

New-York State Fair.—The Premium List for the Watertown Fair has been issued in pamphlet form, and may be had on application to the Secretary here—of H. Cooper & Co., Watertown, and at most Ag. Warehouses in the State. Liberal Premiums are offered for Horses, Cattle and Sheep, from out the State, which we doubt not will be spiritedly competed for by our friends in Canada, to whom there is very convenient access to Watertown, by steamboat to Cape Vincent and thence by railroad.

Cotton-Seed Cake for Feeding.—A report of some experiments recently made with the intention of determining the fattening properties of cotton-seed cake in comparison with linseed cake, was presented to the Council of the Royal Ag. Society of England, on the 27th Feb. To test the quality of cotton-cake for feeding purposes, twelve Southdown sheep were selected and divided into two pens of six each, which were supplied daily with equal quantities of Swedes and chaff or cut straw. The one lot had six lbs. daily of linseed cake, and the other a like quantity of cotton-seed cake. The experiment was continued during four weeks, at the end of which time it was found that the six on linseed cake had gained in weight 63 lbs., while the six on cotton-seed cake had gained only 34 lbs. The four week's consumption of linseed cake amounted to about $5.50, and the four weeks of cotton-seed cake to about $3.30. The extra cost of the former was about exactly equivalent to market value of the additional mutton produced by it. At the end of other four weeks the results corresponded very exactly with those at the end of the first four weeks. From these it would seem that, when the prices of cotton-seed cake and linseed cake are about as they are now, or in the proportion of 4 to 7, the less priced is in reality no cheaper for feeding purposes than the higher priced article. The introduction of another kind of cake is, nevertheless, an addition to our stock of feeding materials of no little importance, inasmuch as it can be supplied in almost unlimited quantity, and inasmuch as the natural competition between the producers of it and of linseed cake, will render the cost of the latter more moderate to feeders of stock.

Beet Sugar.—Can you or any of your contributors, give the most simple process, on a small scale, for the manufacture of sugar from beets. I am desirous of trying the experiment, but do not know where to get any information on the subject. What is the sort of beet most used for that purpose? John Grimes. *Boonton, N. J.* [The process of making sugar *successfully* from the beet, that is, in the *largest* practicable *quantity* and of the *best quality*, is complex and difficult, and would require much space to describe. As it cannot fail to prove decidedly unprofitable, it is perhaps not necessary for us to give the details. It may be sufficient for us to state, that with the most perfect machinery and with every facility for its success, sugar, at present prices, would require that beets be furnished as low as eight cents per bushel—and there would then be no *profit* in the manufacture. No one will labor without any profit to repay him. We should be very glad if some material could be procured for furnishing sugar at a fair rate at the north, but it must be something else than the beet, according to the evidence we have been able to collect upon the subject.]

"Wild Peach."—Is there a tree known as the wild peach? Quite a number of peach trees have been sold in this neighborhood, by men who represent that they order them from New-Jersey, and that they are grafted on the wild peach root, which they allege is entirely exempt from attacks of the grub or borer, hitherto the great destroyer of the peach tree in this locality. Any information with regard to this matter will oblige A Subscriber. *Brooke Co., Va.* [There is no wild peach in this country. The peach came originally from the Himalayan mountains, and in all other places is an *introduced* tree. All the varieties ever grown in this country are liable to the attacks of the peach worm. We shall not say that the above mentioned representations are dishonest falsehoods to deceive purchasers, as possibly they have been misunderstood.]

☞ The Genesee Farmer has passed from the hands of Mr. Vick to Mr. Joseph Harris, by whom it will be hereafter published as well as edited. If the paper meets the success it deserves, Mr. H. will be abundantly rewarded for his labors.

ALBANY SEED STORE.

ESTABLISHED IN 1831.

THE subscriber now offers at wholesale and retail his usual extensive assortment of genuine GARDEN and FIELD SEEDS, growth of 1855, comprising in part the following desirable articles, viz:

King Philip or Improved Brown Corn—price 25 cts. per qt.
White Russian Flax—(a new and desirable acquisition,)—price 25 cts. per quart.
Long-Island Flax.
Garden and Field Peas of all sorts.
Garden and Field Beans of all sorts.
Indian Corn in great variety for the Garden and Field.
Millet Seed—$3 per bushel—Broom Corn.
Hemp—Rape or Cole Seed.
Lucerne or French Clover—White Dutch Clover.
Red Clover and Timothy—Red-Top or Herd's Grass.
Orchard Grass, and Mixed Grass Seeds for Lawns.
English Rye Grass, Spring Vetches or Tares.
English White Mustard, Sunflower.
Improved Ruta Baga Turnip.
Large White English Norfolk Turnip.
Yellow Aberdeen & White & Red top Strap-leaf Turnip.
Red Top and White Flat Turnip.
Large White Field and Long Orange Carrot.
Long Red and Yellow Globe Mangel Wurtzel.
White French and Yellow German Sugar Beet.
Honey Locust, Buckthorn and Osage Orange for Live Fences.
Yellow Locust for Locust posts.
Christina Muskmelon (true,)—50 cts. per ounce.
With a large assortment of choice Flower Seeds and spring planting Bulbs, &c., &c., &c.

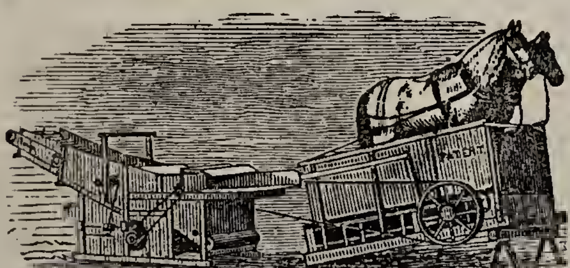
For full particulars reference is made to my Annual Catalogue of Garden, Field and Flower Seeds, just published for 1856, which will be mailed to any address on application.

WILLIAM THORBURN,
Seedsman and Florist,
March 13—w&m3m 492 Broadway, Albany, N. Y.

AGRICULTURAL IMPLEMENTS,

WHOLESALE and retail—FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse.*

GRIFFING, BROTHER & CO.
Feb. 14—w&mtf 60 Cortlandt-St., New-York.



Schenectady Agricultural Works.

IN consequence of the increased demand for their Improved RAILWAY HORSE POWERS,
THRASHERS AND SEPARATORS,
Combined THRASHERS and WINNOWERS,
Circular SAWING MACHINES and CLOVER HULLERS.

The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly G WESTINGHOUSE & CO.

Schenectady, March 6, 1856—w&mtf

Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $le-to $175. For Circulars with engravings and full explanat00ry description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.
Dec. 27—w&mtf

PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

PRESENT LIST OF PRICES.			Weight.
2½ horse power,		$225	1500
3	do	$275	1800
4	do	$340	2000
6	do	$520	3500
8	do	$680	4500
10	do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.

Jan 31—wtf A. N. WOOD & CO.

The Black Hawk Horse Raven,

WILL stand at the stable of the subscriber the coming season. This horse took the first prize at the Fair of the State Agricultural Society of Connecticut last fall, in the class of stallions of all work, seven years old and over. All of his colts (several in number,) competing for premiums at the State Fair were successful, which was also true at the Fair of the Litchfield County Agricultural Society, and of the Housatonic Agricultural Society, which is sufficient evidence of the value of his stock.

ROBBINS BATTELL,
May 1—w1tm2t Norfolk, Ct.

FOR SALE,

A VERY VALUABLE FARM.—The subscriber having determined to retire from business, offers his Farm for sale, containing about nine hundred acres of land, lying in Fairfax county, Virginia, about *ten* miles from Alexandria, Georgetown and Washington, which afford the best markets in the United States for the ordinary products of the farm.

The buildings are all comfortable; and the most of them have been erected within a few years. The *dwelling* is of *brick* with a frame addition containing *eleven* (11) *rooms*—the other buildings consist of *houses* for *laborers* with their families—a large *barn* and *stables*—*granary*—*carriage* and *wagon houses*—large *stone dairy*—*stone ice and meat houses*—a *large house* for *apples* and *cider* making, with *extensive cellars* for storing cider, and vinegar—and other necessary outhouses.

There are about 1000 *peach trees* of choice varieties; and 1500 or more *apple trees*, all in fine bearing condition; from which the subscriber realized last season between four and five thousand dollars, which amount might easily have been *increased to double by an efficient salesman.*

Large crops of *corn*, *wheat*, *oats*, *hay*, &c. are annually produced, for which the soil and climate are admirably adapted. The *meadows* are very *extensive*; and have yielded, without failure, heavy crops of hay for 40 years, without ever having been manured. The soil is easily improved; and is more retentive of improvement than any land within an equal distance of Washington.

It lies between two Railroads, one and a half miles distant from each. These roads, which will soon be completed, run through a lime-stone region 25 to 30 miles distant, and will be able to furnish it in any required quantity. The proprietor, 12 years ago, applied to a field 30 bushels of lime to the acre, with remarkable effect in increasing the crops, which effect still continues.

A large part of this land is in wood—much of it being heavy primitive *Oak-timber* suitable for ship building.

It is *abundantly* supplied with the *purest water.* In point of *healthfulness*, it *cannot* be *surpassed.* The subscriber's family, never numbering less than 25 persons, have not cost for medical services more than an average of $10 per annum, for the last *twenty years*

The wood-land is so distributed that the estate can be divided into several parts.

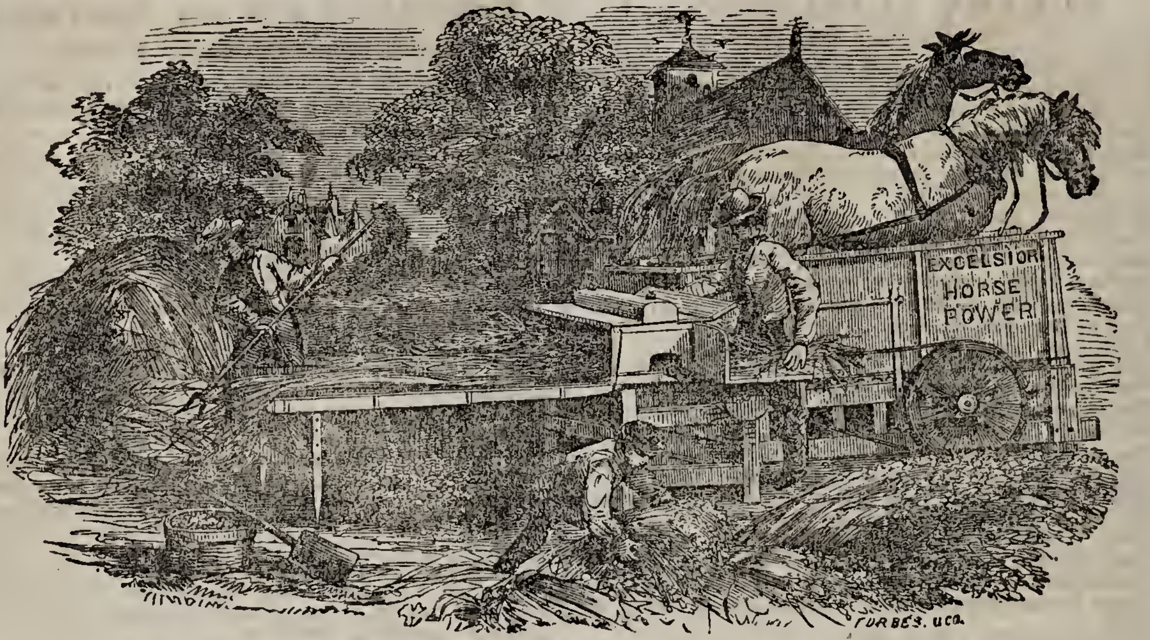
There are Methodist, Presbyterian, Episcopalian and Baptist churches in the neighborhood.

It is offered at thirty-five dollars per acre, which is not half its value—the orchards and meadows alone, being worth the amount demanded for the whole estate.

Its proximity to Washington, the permanent seat of the General *Government*, which is growing very rapidly in wealth and population, must, with its other advantages increase its value annually.

Persons wishing to purchase will make application to

WM. Y. DULIN,
near Falls Church,
March 1—mtf. Fairfax county, Virginia.



THE EXCELSIOR RAILROAD HORSE POWER,
THRESHER AND SEPARATOR,
Circular Saw Mills, Cross-cut Saw Mils, Corn, and Cob Grinders, &c., &c.

HAVING sold about 500 sets of these Powers and Threshers the past season, many of which were purchased by some of the large wheat growers in this state, Vermont, Michigan, Illinois, Wisconsin and Canada, and without exception having given entire satisfaction, (which was guaranteed in all cases.) we do not hesitate to recommend them to Farmers and Mechanics desiring such machines as being in our opinion the most convenient, if not superior in all respects, to any others now in use. Very many flattering testimonials have been received, several of them estimating the cost of threshing at less than one-half that with the ordinary sweep powers with from four to six horses. Some of the principal advantages of these machines are these:

The Power itself occupies very little space, and is operated wholly, if desired, by the weight of the horse, the Power being placed at an angle of ten to fifteen degrees only, according to the weight of the horse, which is found sufficient for threshing all grains, sawing wood, &c. It is comparatively light and portable, and can readily be handled by two men, and used on any common threshing floor, thereby securing ease and safety to both man and beast during stormy weather. The moving parts are very simple, as sufficient speed for all purposes is obtained; thus avoiding a great amount of friction which is unavoidable in most other machines in use. The Thresher is rather new in many respects, and has several important advantages over most others. By having an overshot cylinder, it admits of a level feeding table, and the person feeding it also has the control of the horse, and by means of a brake, the power can instantly be checked or stopped by him with perfect safety, thereby often avoiding accidents. By this overshot motion, all hard substances are prevented from getting in, avoiding the danger of spikes being broken and thrown out—not an instance being known of such accident. By this machine the grain is not scattered, but thrown upon the floor within three feet of it, and admits a Separator to be attached sufficiently high from the floor for all the grain to fall through it, while the straw is carried quite over in good condition for binding,—the straw not being cut or grain broken. The cylinder is considerably less in diameter than most machines in use, and has only about one third as many spikes, but double the number in the concave, which admits of greater speed with the same power. It is also several inches longer, which gives ample room for feeding it to much better advantage. The Separator has been sold with each Thresher, and is considered indispensable, as it makes a perfect separation of the straw and grain, leaving the latter in the best possible condition for the fanning mill. Three men, with a single Power, can thresh 75 to 100 bushels of wheat or rye, or four men with a double Power 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day; and with fanning mill attached to the Power, and one man to attend it, the grain can be cleaned for market at the same time.

They can be taken apart and packed very compactly, and forwarded to any distance by canal, railroad or wagon. The single power, with thresher, separator, etc, weighs nearly 1500 lbs; the double power, with the other apparatus complete, weighs nearly 2000 lbs. All powers warranted.

☞ Descriptive Catalogues sent by mail, if desired, *gratis*.

☞ Persons desiring agencies for these machines, can have them on the most advantageous terms. Communications addressed to the subscriber will receive prompt and full replies.

RICH'D H. PEASE,
Albany, N. Y.

May 8—w2tm1t

Union Agricult'l Warehouse & Seed Store,

23 *Fulton-street*, (*near Fulton Market*,) *New-York.*

PLOWS—a large and choice selection of the best patterns now in use, comprising a variety of forty different patterns and sizes, adapted to the various soils.

HARROWS—Square, Triangular, and Hinged.

SEED DRILLS for sowing all kinds of Garden or Field Seed in drills, to be used by hand or horse.

ROLLERS—Field and Garden sizes.

GARDEN ENGINES, Wheel-Barrows, &c.

Together with an extensive assortment of HORTICULTURAL IMPLEMENTS.

FIELD and GARDEN SEEDS, for sale by

A. M. TREDWELL.

April 3—w5tm2t

FOR SALE.

PURE BRED DEVON STOCK, and one three years old and one two years old BLACK HAWK COLTS, by

LINSLEY BROS.,
West Meriden, Conn.

May 1—w9t

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
New-York.

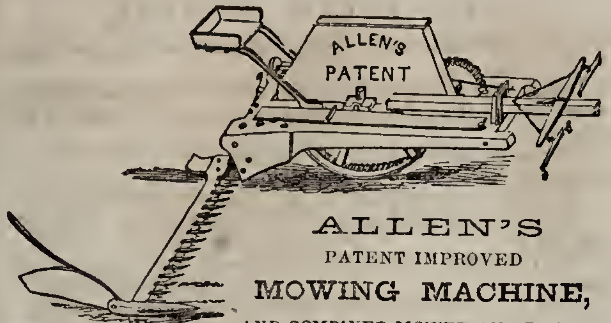
Oct. 11—mtf

VERBENAS AND PANSIES.

THE subscriber has an extensive and very superior collection of Verbenas and Pansies, embracing the best imported varieties, together with many choice seedlings of his own raising, with most other bedding plants usually kept at Green-Houses. Prices as favorable as at any other establishment. Address

JOHN DINGWALL, Florist,
Albany.

April 10—w7t*



ALLEN'S

PATENT IMPROVED

MOWING MACHINE,

AND COMBINED MOWER AND REAPER

STRONG, Simple in construction, not liable to get out of order, Compact, Light, Easy of Draft, and may be worked with a slow gait by Horses or Oxen. No Clogging of Knives. Works well on any ground, however rough—side hills—salt and fresh meadows, &c.—and in any kind of lodged grass and clover.

WARRANTED TO GIVE ENTIRE SATISFACTION.

Manufactured at the Agricultural Implement Manufactory, and for sale at the Warehouse of R. L. ALLEN, 189 & 191 Water street, New-York. April 10—w6m2t

---

DEVON CATTLE.

THE subscriber's second ANNUAL CATALOGUE of DEVON CATTLE, bred entirely from stock of his own importation, is now ready. It contains full pedigrees of all the animals in his herd; of which he offers a number of very superior bulls and heifers for sale.

Also ESSEX PIGS, bred from the best importations.

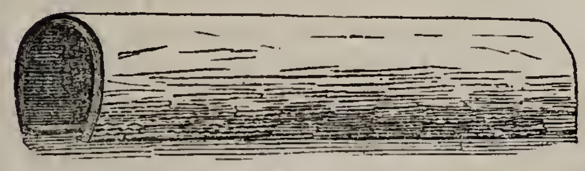
Address, C. S. WAINWRIGHT,

April 1—w&m6ms. Rhinebeck, Duchess Co., N Y.

Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

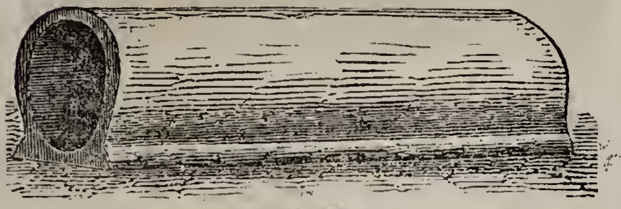
HORSE SHOE TILE 14 INCHES LONG.



PIECES.

4½ inches calibre, ...	$18 per 1000
3½ inches calibre, ...	15 per 1000
2½ inches calibre, ...	12 per 1000

SOLE TILE, 14 INCHES LONG.



PIECES.

4 inches calibre, at	$40 per 1000
3 inches calibre, at	18 per 1000
2 inches calibre, at	12 per 1000

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchant's, 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that tile from his establishment obtained the first prizes at the Albany County. and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to. Address JOHN APPLETON,

195 Washington-st., Albany, N. Y.

May 1—weow8t—m3m

UNION AGRICULTURAL

WAREHOUSE AND SEED STORE,

No. 23 Fulton Street, (near Fulton Market,) New-York.

THE undersigned having succeeded to the business for the Manufacture and Sale of Agricultural Implements and Machinery, heretofore conducted by Messrs Ralph & Co., at No. 23 Fulton-st., intends to continue the same in all its branches, and is prepared to furnish goods of the best style and quality at low prices.

Machinery, or any articles in the line, manufactured to order, according to pattern, at short notice.

His facilities for manufacturing enable him to offer to Dealers and Farmers the following leading articles at low figures:

Hand and Power Corn Shellers,
Fan Mills,
Plows, Harrows, Cultivators,
Revolving Hay Rakes,
Spring Tooth Hay Rakes, (the best rake in use.)
Cast Iron Corn Mills for Hand or Power,
Road Scrapers, Wheel Barrows,
Field and Garden Rollers,
Corn and Cotton Planters,
Post or Ground Augurs,
Hay, Straw and Stalk Cutters,
Wagons and Carts,
Vegetable or Root Cutters,
Sausage Cutters and Stuffers.

In connection with extensive farming operations, I have for some years past given much attention to the raising of thorough-bred SHORTHORN, NORTH DEVON and AYRSHIRE CATTLE, and other fine stock, and now offer the advantage of my knowledge and experience to persons desiring to purchase. A. M. TREDWELL.

March 27—w5t&eow4t—m3t

ATKINS' AUTOMATON:

OR,

SELF-RAKING REAPER AND MOWER.

BEST MACHINE IN USE.

1 (the first) used in 1852.
40 used successfully in 1853.
300 in twenty different States in 1854.
1200 in all parts of the Union in 1855.
3000 building for the harvest of 1856.

THERE ARE SIX GOOD REASONS FOR THIS unparalleled increase and great popularity: 1st. It is strong and reliable, and easily managed. 2d. It saves the hard labor of raking. 3d. It saves at least another hand in binding. 4th. It saves shattering by the careful handling in raking; besides the straw being laid straight, it is well secured in the sheaf, and does not drop in the after handling, and the heads are not exposed in the stack, so that the GRAIN saving even exceeds the LABOR saving. 5th. It is a good Mower, being one of the best convertible machines in use. 6th. It has a knife that does not choke.

Its other excellencies, too numerous to mention here, are fairly given in the circulars. Its intrinsic worth is also attested by the award (mostly in only 3 years) of

OVER 70 FIRST PREMIUMS!

PRICE.—REAPER AND MOWER. $200.—$75 on its receipt, $75 first September, and $50 first December. Price of SELF-RAKING REAPER only $175. Considerable saving in freight to those at a distance who order prior to 1st March; also liberal discounts for advance payment.

To procure a machine, order immediately. Though so little known the past season, and none ready for delivery till 1st of May, yet not two-thirds of the customers could be supplied. The reputation of the Machine is now widely established, so that THREE THOUSAND will not as nearly supply the demand as twelve hundred did last year, and we shall also be selling four months earlier.

☞ Order early, if you would not be disappointed.

PAMPHEETS giving IMPARTIALLY the OPINIONS OF FARMERS, together with orders, notes, &c., mailed to applicants, and prepaid.

☞ Write to us at CHICAGO, (Ill.,) DAYTON, (Ohio,) or BALTIMORE, (Md.,) which ever is nearest you.

J. S. WRIGHT & CO.

"Prairie Farmer" Works, Chicago, March 6—w4tm4t

North Devon and Ayrshire Cows,

THOROUGH-BRED, for sale by

ALFRED M. TREDWELL,

Union Agricultural Warehouse and Seed Store, No. 23 Fulton Street, New-York City, or Madison, Monroe County, New-Jersey. April 17—w4tm2t

AGRICULTURAL SEEDS.

THE subscribers offer of the growth of the past year, and of the finest qualities, their large stock of

Early Yellow Stone Turnip,	at	75	cents per lb.
Yellow Aberdeen	do	75	do
Skirving's improved Ruta Baga	do.,	50	cents per lb.
Early White Stone	do	75	do
Large White Norfolk	do	50	do
Large White Globe	do	50	do

with twenty other varieties of Turnips, for which see priced catalogue.

ALSO,

Long Orange Carrot,	clean seed,	$1.00	per lb.
White Field	do do	75	do
Early Short Horn	do do	1.00	do
Long Red Mangel Wurtzel Beet,		50	do
White Silesia Sugar	do	50	do
Round Leaved Spinach,		75	do
New Flanders	do	1.00	do
Prickly or Winter	do	75	do

AND AT REDUCED RATES IN QUANTITIES, and a full assortment of Vegetable, Flower and Field Seeds, warranted FRESH, PURE and TRUE.

Lucerne and White Dutch Clover, Sainfoin, English and Italian Ray Grasses. Sweet Scented Vernal Grass. The Fescues and other varieties of Foreign Grasses, and the most approved mixtures of English, French and domestic Grasses for LAWN PURPOSES.

Norway Spruce, and other Evergreen Seeds—Osage Orange and Honey Locust for Hedges—Yellow Timber Locust—Improved King Philip Corn—Japan Peas, &c., &c.

Catalogues mailed to applicants enclosing a three cent stamp, and orders by mail promptly responded to.

J. M. THORBURN & CO., 15 John-st., New-York.

DIOSCOREA BATATAS—New Chinese Potato or Yam, at $3 per dozen. Description and direction for culture urnished to applicants. May 1—w5tm1t

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Artcher & Co.'s Tile Works,

Near the Orphan Asylum, on the Western Plank Road—Office 63 Quay-street, near the Steam-boat Landing.

THE subscribers are prepared to furnish Drain Tile of all sizes and patterns at reduced prices, and warranted as good as any made in America—their length being 15 inches—(1000 will lay 76 rods of drain.) On a large order a liberal discount will be made.

Horse Shoe Tile—4½ inch calibre. $18 per 1000—3½ inch, $15 per 1000—2½ inch, $12 per thousand.

Sole Tile—4 inch calibre, $40 per 1000—3, $18 per 1000—2, $12 per 1000.

Also on hand Horse-Shoe Tile, suitable for small streams and out-houses, at $8 per 100. Also large Tile, suitable for cellars, cisterns, sinks, &c., at $4 and $6 per hundred. Tile delivered at the docks and railroads free of cartage. Orders thankfully received and promptly attended to. Address

ARTCHER & CO.,
63 Quay-st., Albany, N. Y.

DISSOLUTION.—The copartnership heretofore existing under the firm of Appleton & Alderson, is this day dissolved by mutual consent. Feb. 1st. 1856.

As usual, orders for Tile will be thankfully received by

GEO. ALDERSON, Agent,
May 1—weow&mtf Albany.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep French Sheep. Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan. 1—w&m1y*

PERUVIAN GUANO,

OF THE best quality, with government weight and brand on each bag.

COLUMBIAN GUANO, containing large proportions of phosphate of lime and free phosphoric acid, in bags of 160 lbs. each.

SUPERPHOSPHATE OF LIME.

BONE DUST.

TA-FEU, POUDRETTE, and other FERTILISERS.

AGRICULTURAL and HORTICULTURAL IMPLEMENTS.

FIELD AND GARDEN SEEDS—A very large assortment.

R. L. ALLEN,
April 10—w6tm2t 189 & 191 Water-street, New-York.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,

GRIFFING BROTHER & CO,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

Imported Horse "Consternation."

THIS famous thorough-bred horse, will stand the present season as heretofore at the farm of J. B Burnet. Esq., 1½ miles west of Syracuse, at $10 the season—$20 to insure. The money to be paid in advance in all cases. Where insurance is effected, a receipt will be given, promising to refund the money in case the mare is proved not to have got in foal, and provided always that she is regularly returned to, or left with the horse until the groom is satisfied she is stinted. Pasturage at 50 cents per week, at risk of owners.

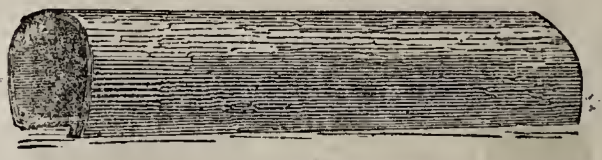
WILLIAM KEENAN, Groom.
Syracuse, May 1, 1856—w9tm3t

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

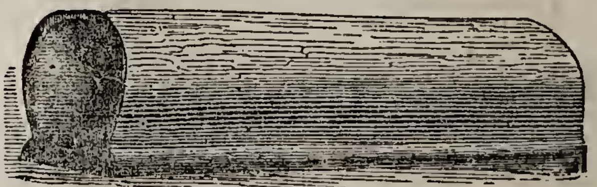
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

2½ inches calibre,	$12	per 1000
3½ " "	15	"
4½ " "	18	"
5½ " "	40	"
8 " "	80	"

SOLE TILE, 14 INCHES LONG.



PIECES.

2 inches calibre,	$12	per 1000.
3 " "	18	"
4 " "	40	"

Also on hand 6 inch calibre Octagon pipe, $20 per 100, and 8 inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Late Babcock & Van Vechten,
May 8—w&m3ms. Albany, N. Y.

RICH'D H. PEASE, Agent,
Excelsior Agricultural Works, Warehouse and Seed Store,
369 & 371 Broadway, Albany, N. Y.

Farm Lands for Sale.

THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL OVER

Two Million of Acres of Farming Lands,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE lands were granted by the Government, to aid in the construction of this Railroad, and include some of the richest and most fertile Prairies in the State, interspersed here and there with magnificent groves of oak and other timber. The Road extends from Chicago, on the North-East, to Cairo at the South and from thence to Galena and Dunleith, in the North-west extreme of the State, and as all the lands lie within fifteen miles on each side of this Road, ready and cheap means are afforded by it for transporting the products of the lands to any of those points and from thence to Eastern and Southern markets. Moreover, the rapid growth of flourishing towns and villages along the line, and the great increase in population by immigration, etc., afford a substantial and growing home-demand for farm produce.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc.

Economy in cultivating and great productiveness are the well known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very *large profits.* A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to 2 50 per acre. By judicious management, the land may be plowed and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market.

Bituminous coal is mined at several points along the Road, and is a cheap and desirable fuel. It can be delivered at several points along the Road at $1 50 to $4.00 per ton; Wood can be had at the same rates per cord.

Those who think of settling in Iowa or Minnesota, should bear in mind, that lands there, of any value, along the water courses and for many miles inland, have been disposed of;—that for those located in the interior, there are no conveniences for transporting the produce to market, Railroads not having been introduced there. That to send the produce of these lands, one or two hundred miles by wagon to market, would cost much more than the expense of cultivating them; and hence, Government lands thus situated, at $1.25 per acre, are not so good investments as the land of this company at the prices fixed.

The same remarks hold good in relation to the lands in Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons, or interrupted water communications, increases the expenses of tranportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in cost of transportation, especially in view of the facilities furnished by this Road, and others with which it connects, the operations of which are not interrupted by the low water of summer, or the frost of winter.

PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for Deeds may be made during the year 1856, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract.

Interest will be charged at only 3 per cent. per an.

As a security to the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that at least one tenth of the land purchased shall yearly be brought under cultivation.

Twenty per cent. from the credit price will be deducted for cash. The company's construction bonds will be received as cash.

Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.

They will be 12 feet by 20 feet, divided into one living and three bed-rooms, and will cost complete set up on ground chosen anywhere along the Road, $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

Special arrangements with dealers can be made to supply those purchasing the Company's lands with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices.*

It is believed that the price, long credit, and low rate of interest, charged for these lands, will enable a man with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to JOHN WILSON,

Land Commissioner of the Illinois Central R. R. Co.
Office in the New *Stone Passenger Depot*, foot of South Water Street, Chicago, Ill. May 1—m6t

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UNITED STATES AGRICULTURAL

Warehouse and Seed Store.

MAYHER & CO., Nos 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements, FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz:—

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle **D** and **F** Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf

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Rural Architecture, &c.

RURAL HOMES, or Sketches of Houses Suited to American country life, by Gervase Wheeler—price $1.25.

HOMES FOR ALL, or the Gravel Wall and Octagon mode of Building, by O. S. Fowler—price 75 cents.

LANDSCAPE GARDENING, or Parks and Pleasure Grounds, by C. H. J. Smith, with Notes and Additions, by Lewis F. Allen—price $1 25.

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THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. IV. ALBANY, JULY, 1856. No. VII.

A Day in Dutchess.

The readers of the Co. Gent. may remember an article in its columns last year, (vol. v., p. 293,) containing details of a Sheep-shearing in Dutchess Co., and some notes in regard to the importations of Silesian and French Merinos, in which Wm. Chamberlain, Esq., of Red Hook, has been for several years engaged in connection with Messrs. Geo. Campbell of Vermont, and Wm. H. Ladd of Ohio. We were happy to avail ourselves of the opportunity of being present on a similar occasion on the 13th inst., and of obtaining some farther particulars which may be of service to the public.

The Sheep,

In Mr. Chamberlain's barns, are about 400 in number, including perhaps 100 lambs of from one to five months old,—the whole nearly equally divided between the Silesian and French breeds. Of the *French* Merinos, the first importation was made in 1851, when 86 ewes and 3 bucks were brought over. Two other lots of about 30 each, including both sexes, were procured in 1853 and '54. But as some inconvenience almost invariably results, where more than one kind is bred, Mr. C. intends disposing of the French at an early day, we believe, and devoting his attention to the Silesians entirely.

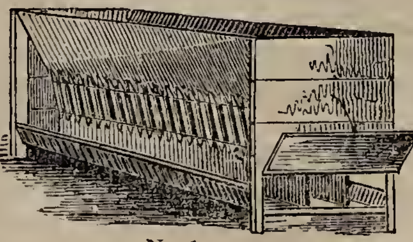
The first importation of the *Silesian* Merinos occurred in May 1851, and consisted of 40 ewes and 15 bucks. Another lot, of 31 in all, was brought over in September, 1853; a third, of 124, partly in May and partly in September, 1854, and, lastly, thirty-four ewes and two rams, had just arrived the preceding week, under the care of Carl, for several years Mr. Chamberlain's shepherd, who had been entrusted with their selection and purchase. All these importations were procured directly or indirectly from the flocks of Mr. Fischer, of Werchenblatt, in Silesia; by whose father the breed was originally obtained from Spain as long ago as 1811, since which time,—and this is a noteworthy fact—they have been bred, by father and son, *altogether without* the intermixture of any other blood. This in-and-in breeding doubtless furnishes the reason why the Silesian parent is able to mark so strongly his offspring from the common ewes of the country,—which cross, in the opinion of Mr. Campbell and others, is the best adapted for ordinary farm purposes, the lambs produced gaining greatly in fineness and value of fleece.

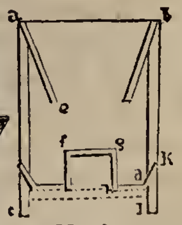
Where and How they are Wintered.

The cellars of Mr. Chamberlain's extensive out-buildings embrace an area of about 120 feet by 45,—a space which furnishes the most ample accommodations for his present number of sheep. They are well lit, and very warm, the walls being doubly boarded and filled in between with straw. The litter is allowed to accumulate all winter, not being removed until the sheep go out, but by the addition of straw for bedding, being kept as clean and sweet as the most fastidious could desire, while every particle of manure is preserved at the same time, and in the best manner. That the comfort and health of the flocks are also fully provided for by these means, is evidenced by the fact, that of the large number of lambs dropped through the season, from December into April, not one, born in a healthy condition, has been lost, or suffered from any subsequent cause,—while, in regard to economy, Mr. C. estimates that the food of 67 sheep without shelter, would suffice abundantly for 100 in his barns, thus effecting a saving of one-third. The sheep are taken into the yard twice daily for water and exercise.

Light and handy hurdles are employed to separate the sheep in pens, as being much more economical, convenient and tidy than the use of boards temporarily nailed to the timbers. We were much pleased also with

The Feeding Boxes,


No. 1.



No. 2.

Of which we have had the above cuts engraved, including as will be seen, a perspective view, (No. 1,) and a cross section (No. 2.) Constructed mainly of twelve-foot boards, nine inches in width, they are simple, inexpensive, saving of fodder and convenient in feeding and cleaning. The height is four feet; width 34 inches; slanting sides (represented in the section at *a. e.*) 18 inches broad; width of aperture (*e.f.*) to the bottom of the hopper, 12 inches, across which inch slats are nailed, 3 inches apart in the clear, and having their ends chamfered so as to be fastened neatly and securely to the slanting sides above and the perpendicular boards below, which form the backs of the troughs. A board 9 inches wide, forms the bottom of the hopper (*f. g.*;) another like it is used for the bottom, (*h. d.*) and a third for the back (*g. h.*) of each trough,—the front of which is formed as will be seen in the section, of a slanting board, 4 inches wide, and its bottom raised six inches above the floor. The four corner posts, on which the ends are nailed, are bevelled at the top to secure additional strength in the slanting sides of the hopper, while the lid at the lower part of the end, which is seen open, is more a matter of convenience in brushing out the contents of the trough, than of absolute necessity.

The hay or straw put into the top of the box is drawn through the slats by the sheep, while all the seeds and chaff fall into the troughs, so that there is no possibility of the slightest waste, while the troughs furnish also every needed facility for feeding grain and cut roots.

The Feed.

Mr. Chamberlain, like many of the best English farmers, is beginning to doubt whether he can afford to grow hay as feed for his stock. He has given more attention to the production of beets than any other root crop, and has a variety, the seed of which was bought for Mangel Wurzel, but which turned out to be something else, although he is inclined to give it the preference to the genuine article. He can raise enough on one acre to feed five cattle, and his sheep and other stock thrive well on the beets and cut straw, with little or no hay.

Carl, the Shepherd,

To whom we have already referred, has proved an invaluable assistant. He was brought up at Mr. Fischer's, and first came to this country with the importation of 1853. He knows every individual sheep of the flock at sight, and has them under such excellent training that they follow at his call. He is assisted by one or two sheep-dogs, and on his recent visit to the *Faderland*, procured and imported another pair from a village on the Rhine. We mentioned last year the careful record he keeps of all the occurrences among his pets, including memoranda of every kind needed in the fullest sheep-biography. We were told one or two anecdotes, exemplifying both a great degree of careful shrewdness in this man, and the wonderful command he has acquired over the sheep.

The Shearing.

Four or five men were employed in shearing during the day, (May 13.) We present the following notes, which include the weights of both carcases and fleeces:

SILESIANS.

Breeding Ewes.	*Carcass.* lbs.	*Fleece.* lbs.oz.	
No. 125	74	8 12	It should be remembered that these ewes have suckled lambs since last December.
111	62	9 2	
179	71	8 8	
213	75	9 8	
326	65	8 9	

Yearling Ewes.	*Carcass.* lbs.	*Fleece.* lbs.oz	
No. 1	55	8	These ewes are all less than 11 months' growth of wool, as they were shorn the 20th of last June, shearing then upwards of 3 lbs. each, and wool sold at 50 cts. per lb.
270	60	8 4	
240	67	8 5	
121	72	8 7	
132	57	8 7	

Bucks.	*Carcass.* lbs.	*Fleece.* lbs.oz.	
No. 4	110	13 4	—He was of the last importation & his fleece of 11 mos. growth.
No 17.	128	11 12	—One year's growth.

Yearling Bucks.	*Carcass.* lbs.	*Fleece.* lbs.oz.	
No. 275	64	8 6	Only 11 months' growth.
68	74	8 8	

FRENCH MERINOS.

Yearling Ewes.	*Carcass.* lbs.	*Fleece.* lbs.oz	
No. 64	73	14	These are fleeces of seventeen months' growth.
73	71	14 6	
63	69	12 12	
14	72	13 14	
33	70	13 10	

Mr. Campbell thinks it safe to say that a flock of Silesian Merinos, well kept, and *the wool well washed*, would produce throughout an average of 5 lbs. per head. The above fleeces were none of them washed, but probably not so dirty as where the sheep are less tidily kept. Mr. C. promises to furnish us on his return to Vermont, with an account of the shearing of several half-bloods, in order to show the value of the cross.

Some Reclaimed Lands.

Mr. Chamberlain's farm embraces between four and five hundred acres, and was purchased by him 15 years ago in a very low and impoverished condition, having previously been occupied by tenants a number of years. About 25 acres of swamp lands have been reclaimed by him, and from being a decided nuisance, have now become fertile themselves, and a source of fertility for the remainder of the farm. The improvement cost him, from his want of knowledge of the best and cheapest modes, in the neighborhood of $75 per acre, but with his present experience, could have been accomplished, he thinks, at about one-half this expense. But even this large outlay has been more than repaid as we shall see. He has no doubt that there are enough lands now lying waste in the one county of Dutchess, and which might be similarly reclaimed, to feed all the counties bordering upon the river!

The improvement was commenced by stone drains laid down in sufficient number to carry the water totally from the ground. The brush having next been cut away, a plow with steel point and coulter was employed to cut through the tussocks remaining, which were gathered into heaps, dried and burnt. On one portion of the land thus reclaimed, successive crops of corn have been raised for *seven* years, on another for *five* years. The latter, after this heavy cropping, was last year seeded, but the grass grown was so rank, that it was beaten down by the first storm, and made worthless for hay. The product of corn averaged during all these years, 80 bushels per acre, yielding, according to Mr. C.'s estimate, a clear profit every season of $75—the full first cost of the improvement,—the corn-stalks, used as fodder, being considered an equivalent for the expense of cultivation

The swamp now rates as the most productive ground in the county. Muck taken from it has proved an excellent dressing for uplands, good crops being obtained by its use, without any other manure. We were afterwards informed by Mr. Wainwright, that he is obliged to pay 37½ cents a-load for muck entirely similar, and of which, even at this cost, he makes extensive use.

Mr. C. derives much very valuable manure also, from his manner of wintering his sheep above described; though he has not yet carried it quite so far as they do in Germany, where the litter and manure is sometimes allowed to accumulate to a depth of four or five feet before removal. He had tried the experiment also during the past winter, with a portion of his cattle—keeping them well supplied with bedding on a *ground* floor,—and had found it certainly open to no objection on the score of *neatness*, as we are able to testify from personal observation.

Careful regard being thus paid to the home manufacture of manure, Mr. Chamberlain has been able to bring his whole farm from a very low to a high state of productiveness. Employing the beds of muck, and economizing all the accumulations from his sheep and other stock, it has never been necessary for him to go beyond his own establishment for its fertilizers; he never had used guano at all, with the exception of a small lot last season for purposes of experiment,—with which, indeed, he was so well satisfied, that he has this year procured a larger quantity for further trials,—yet, in the main, his system has been that, in which, in a word, consists the true doctrine of all profitable farming, viz: *reliance upon the resources of the farm* for maintaining and increasing its fertility.

An Implement or Two.

Our attention was called to a root-cutter, manufactured by Mr. Campbell at Westminster, Vt., and invented by H. A. Willard of that State. It *gouges* the roots into shavings of convenient size for feeding, and has been found to work entirely to the satisfaction of all concerned.

We will mention here an English machine employed by Mr. Wainwright,—Crosskill's Clod Crusher. It was made for him by the Burrals of Geneva, cost between $50 and $60, and had proved of great value in breaking up the lumps of clayey soil plowed when wet, and baked by the sun into masses too hard to be reduced by any other means. Mr. W. uses also Seymour's Broadcast Sower, which he had tried for his spring crops and also with grass seed and guano, and with the operation of which he expressed himself entirely satisfied.

Mr. Wainwright's Place and Stock.

In the afternoon we proceeded with several other gentlemen to visit The Meadows, the residence of C. S. WAINWRIGHT, Esq., who has been engaged for nearly ten years in various improvements upon it. The house is a very tasteful structure of stone, not of unusual size, but substantial, and in good keeping with a well-chosen site. From the front there is a delightful river view, following its course to the northward ten to fifteen miles, and embracing along the horizon, the highest peaks of the Catskills. Beneath the brow of the hill the railroad lies concealed, and the trains go by almost unheard. The smooth water, beyond, affords a beautiful perspective, studded with the sails of the silently moving river craft,—noiseless evidences of industry and life, as much more picturesque in a landscape than the blustering vehicles of steam, as they are of less practical importance and pretending mien. Add to this scenery yonder, a well shaven lawn under foot, with now and then on either hand a flower-bed gracefully embraced amidst the turf, here a clustered and variegated mass of early pansies, not very far away a bending knoll green with the young wheat,—not to speak of a smooth road curving off to well-filled stalls in the unseen distance,—and you can, perhaps, imagine a picture which, to say the least, is very pleasant indeed for a city man to wake up in of a fine May morning.

At the stable we find Mr. W.'s herd of Devons, about 30 in number besides calves, and peculiarly fortunate in including several winners of high prizes, both in this country and abroad. "May-Boy" is the principal bull at present. He was calved in 1850, bred by Mr. George Turner, of "Barton," near Exeter, England, and imported by Messrs. W. P. & C. S. Wainwright in 1851. His sire, "Duke of York," obtained two first prizes at Shows of Royal Ag. Society, respectively as a yearling and an aged bull, while his granddam, "Old Mayflower," and two full sisters, were also winners at Royal Shows. May-Boy himself has had first prizes at Am. Institute, N. Y. State and U. S. Ag. Society Exhibitions. "Omar Pasha," who is growing up eventually to succeed him, was also bred by Mr. Turner, having been calved in the spring of 1854, and was imported by Mr. W. during the season of 1855—at the Carlisle Show of the Royal Ag. Society held in which year, he had taken the first prize as best yearling bull. The females of the herd comprise among others, "Nonpareil," of the first importation of the Messrs. W. in company, and now 13 years old; "Kate Kearney," imported in 1853, a favorite animal; "Daisy," brought over in 1855, and since the mother of a bull-calf sired before leaving England by "Napoleon," the taker of the first prize in his class at Carlisle,—all fine specimens of this valuable breed. They were looking very well, and its admirers can but be amply repaid for a visit. Mr. W.'s Essex Pigs are also worthy of note.

◆

Peaches in New-Hampshire.

The two past winters have been hard customers to our peach trees, but still many of my trees will show a tolerable blossom, while others have the fruit buds killed entire. Some trees are more hardy than others. One thing is certain; it cannot be told by the fall of the mercury in the thermometer, the exact degree of cold required to kill the blossom-buds on the peach tree, in different winters. I have had them all destroyed when the mercury during the winter did not fall more than 10° or 12° below zero, while in another winter, the mercury went down to 18° at three different times, and yet I had a tolerable crop of peaches the autumn following. Much depends upon the ripening of the new growth of wood and buds in the autumn.

A Few Hours at Thornedale.

Among those who have selected the best, and bid the highest at celebrated English Short-Horn and South-Down sales for the past few years, are eminent the names of Jonathan and Samuel Thorne, Esqs., father and son, of Dutchess Co., in this State. The stock thus collected has of late passod entirely into the hands of Mr. T., Jr., who has devoted himself to breeding, in the hope and with the intention of making it a permanent pursuit, and of establishing here a herd which shall at least equal any to be found abroad. Attracted to this undertaking by a natural taste for high-bred animals, he enters upon it with the additional qualifications derived from repeated personal examinations of the best herds, and intercourse with the most successful breeders of England—attentive and earnest study of the subject, and the possession of an extensive farm excellently adapted to the end designed, and of the wealth necessary to avail himself of all means for promoting it. Under these circumstances it is not surprising that the fruits of his enterprise in importing, and skill in breeding, should be already visible about him in a collection of choice and beautiful animals, old and young, well able to bear the scrutiny of the most fastidious judge.

Let us first accompany our host to the pastures yonder. The cattle are now tasting the fresh grass for only the second time, and having passed the winter on hay alone, are not in as good condition to be shown, as they may be a few weeks hence. Here is 'Countess,' red and white, of Robt. Bell's breeding, and dam of the first prize yearling bull at the last Connecticut Show; here 'Mystery' and 'Constance,' roan, as is also 'Lady Barrington' under yonder trees; and there are 'Lady of Athol' and 'Dinah Gwynne,' both from Mr. Tanqueray's herd, one sired by 'Duke of Athol,' and the other by famous 'Balco,' whose junior we shall presently see. They are all marked by the softness of touch, fineness of coat, full and rounded carcasses, broad chests and well-squared backs, that pertain to general Short-Horn excellence. Before we go to the next pasture, we shall stop a moment on the brow of this hill, to look about us. Not steep, nor to appearances so very high, it commands a prospect far and near on every side, of great extent, and comprising some of the finest farming lands of the county. In nearly a square about us, are extended the five or six hundred acres that have descended in the Thorne family, since the days when they could be purchased at six dollars apiece, and by whom they have been tilled until their present name is fairly won and worn. Far away some forty or fifty miles, the Catskills are still in sight, and the 'Mountain House' is plainly visible without the aid of glass. So we take our way downward to another field.

'Duchess 64th,' of tho famous blood which has commanded the highest prices on record,* is now before us, and probably one of its most perfect living representatives. She must rank the first of the many beautiful cows we have admired and are to see. Next after her, perhaps, is 'Frederica,' imported in 1853, when two years old, and having already taken five first prizes at Royal, Irish, and Shire Society Shows. 'Aurora,' whose excellencies entitle her to nearly an equal rank, is a beautifully marked red and white, five years old, and 'Lallah Rookh,' six months younger, vies closely with her—imported when a yearling, she had already won two first prizes, and was purchased at that age for $2000. We cannot specify farther, though 'Diana Gwynne,' 'Peri,' 'Darling,' 'Agnes,' and others, seem waiting the compliments they well deserve.

Younger are the recipients of our third call, than any of their predecessors in examination, and we are referred to them as testing whether the character of Mr. Thorne's importations is likely to degenerate. Better witnesses to the contrary there could not be, than '1st Duchess of Thornedale' by 'Grand Duke,' out of Duchess 64th, now 18 months old, and a heifer to be proud of; 'Clover,' out of Countess by the same sire; 'Lady May' from a dam, 'Lady Millicent,'—whom we ought to have mentioned when we saw her a short time ago,—by 'Lord of Brawith;' 'Mistress Gwynne,' sired by Grand Duke, out of 'Mystery,' and who promises to prove a formidable rival, even for the first in our list. These would have no reason to shun a trial of merit with any stock of their age, now in the possession of English breeders, and they certainly give high promise of future successes to their enthusiastic owner.

We can but stop a moment to watch the fine action of a pair of colts in the next pasture—respectively of Black Hawk and Mambrino blood. Those Devon steers in the lane by the barns, are samples of five yoke employed on the farm, three of them of Connecticut breeding and training, and two from Otsego Co.; costing here about $200 a pair, and destined in the end to be fatted for the butcher, at a good price. Now we come upon a pair of Jersey cows, imported with one or two others in September, 1854, and June, 1855, and kept merely for their milk. They are less ugly in appearance than most of their kind, and evidently prodigies for the dairy. Indeed, one of their number, brought over last summer, who had taken the Jersey Ag. Society's, and other first prizes, had made, according to tho certificate required by its rules, *seventeen* pounds of butter in one week, and a trial by Mr. Thorne last winter, under unfavorable circumstances, and, as we understood, without extra keeping, resulted in a yield of nine and a half pounds for the same time. He intends to preserve a careful record of her daily product through the summer. We afterwards see her calf, looking more like a fawn than the offspring of a staid domestic animal, so tender and expressive are its eyes, so deer-like the markings and color of its coat, and the delicacy of its legs and hoofs.

On our way toward the barns, we look at the South Downs—a flock numbering thirty-two ewes, and with no less than *fifty-one* lambs accompanying them. They are all imported or their immediate descendants, and include several pens of high prize winners abroad. It would be difficult to point to so large a number, of greater uniform excellence, elsewhere. Tho 'model' ewe, presented to Mr. T. by Jonas Webb, as a specimen of a perfect South Down, is among them, nor by a great interval better than her companions. There are also in the yard near by, a number of wethers, whose mutton is esteemed a rare delicacy and commands the highest prices. The ram, '112,' the sire of most of the young sheep, is the one purchased for $650 in 1853, at Mr. Webb's annual letting.

We come now to the bulls, and first among them is 'Grand Duke' (10,284.) The price paid for him ($5000) is well known. He had the misfortune some time since, as may be remembered, to meet with an accident, entirely incapacitating him for service, and from which it is not likely that he will ever recover, having at the time sired but six or seven calves. Of these 'Royal Duke,' out of Frederica, was the one whose sale to Jas. B. Clay, of Ky., was noticed in our paper a few weeks since. The amount paid was $2000. To take the place of Grand Duke, 'Neptune' and 'Second Grand Duke' were imported last fall—the latter costing the same sum paid for Grand Duke in 1853. They are splendid animals, tho former of a noted prize-winning family, while the latter, not yet quite three years old, promises to do ample credit to his long line of 'Duchess' ancestry. He is marked by great length of body, and will soon come into possession of all the majestic size and carriage of Grand Duke the first, whose excellent quality, broad chest, muscular neck, full crops and flanks, he already rivals. 'Young Balco,' the sire of much of Mr. Thorne's young stock, is another celebrated bull—sired in England by 'Balco,' but born after his arrival here, and with several of his relatives owned in different parts of the country, ranking with the best of our imported Durhams. Among his male offspring of Mr. T.'s breeding, worthy of particular note, are 'Don Juan,' from Darling, herself sired by Grand Duke, and 'Tom Moore' out of 'Lallah Rookh.' Several heifers which we now see for the first time, should also be noticed—among them '2d Duchess of Thornedale,' and Grand Duke's last calf, 'Peerless,' out of 'Peri.' It may be stated that Grand Duke Second, and the 'Duke of Dorset,' who has recently been purchased by Mr. T., and is soon expected to arrive, were the last remaining of the Duchess blood in England. We do not see but the scale of importation must presently be turned the other way, and at that time, if not before, we trust his taste for and skill in conducting the pursuit, will fully rank our friend as a breeder of Short-Horn cattle and South-Down sheep, with **Bates** of Kirkleavington, and **Webb** of Babraham.

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* At the sale of Lord Ducie's herd in 1853, 'Duchess 64th' was bid off by Mr. Thorne at the price of $3000.

In going, we may note one or two outbuildings near the house, which form a great luxury and convenience. One is a cold grapery—an inexpensive, but very considerable addition to any country place, and which, nevertheless, strange to say, is very seldom found. It was constructed, we were told, entirely from the directions given in Chorlton's handbook. The vines were apparently in a very thrifty condition. Another is an ice-house, filled from a fish-pond near at hand,—a building which must eventually find its way to almost every farm. The one before us is constructed with quite a space all around between its double walls, affording a great deal of excellent storage for provisions of different kinds.

Thus, after several very pleasant hours at "Thornedale," we return to Poughkeepsie—fourteen miles, over an excellent turnpike road, which should not fail to be commended. It is a beautiful drive for a spring morning, skirted on both sides with land which it would be almost sport to plow,—except, indeed, now and then, where the firm old foundations of Dutchess crop out rather too prominently, and the little boulders, telling of ancient floods, are somewhat too thickly scattered for any farming, but the most frugal and *the best.*

Notes Editorial—A Grand-Island Farm.

At the head of Grand Island, washed on three sides by the waters of Niagara, lie a thousand acres of almost virgin soil, belonging to **Lewis F. Allen**, Esq. It is a fine position, commanding a view above of the city of Buffalo, and as a back-ground, quite a range of hills, distant twenty-five to thirty miles; opposite on the westward, a good farming country under Her Majesty's dominion, and below on both sides the pleasant river scenery, as it bends around between the islands and opposite shores. Mr. A.'s farm also embraces Beaver Island, a pocket edition of the other, and separated from it by a little creek of only a few yards width,—like all Niagara in being of the purest and bluest water, and an especially favorite haunt of the various river fish. The last day of spring we spent in a pleasant ramble on Mr. Allen's premises, to which the only drawback was the coldness of the weather. The wind, which is remarkably fond of following its own listings along the whole range of lakes, by no means becomes more tractable between Buffalo and the Falls; and it seemed anxious to greet us with some peculiar demonstrations, capping the fresh-water waves with white, and sweeping the American shore with all the passion it might feel if it was in faithful alliance with the Canadas and the two countries were actually at war. It is something, though, to be where the air *can* circulate, and in summer nothing can be more refreshing than the breezes from these inland seas.

Mr. Allen is so well known as one of the leading agriculturists of this State, and editor of the American Herd-Book, as well as by other valuable contributions to our rural literature, that we are sure the imperfection of a few notes taken at his farm cannot prevent their possessing some degree of interest to the farming public. He has only been engaged about eight years in clearing it up, and in the neighborhood of 300 acres are still under a heavy growth of timber. One hundred and fifty or two hundred are in meadow; much of the remainder in pasture, and the balance chiefly occupied by considerable orchards, apple, peach and pear.

The Meadow Land.

Mr. A.'s farm is well adapted for stock-growing purposes, to which it is now mainly devoted. The meadows are almost on an unbroken level, though not so entirely as to obstruct drainage,—furnishing thus fine ground for the operation of a mowing machine, which it is designed to put to a thorough test during the present season. The stumps of the old trees are slowly and surely yielding to the influences of time, and will soon entirely disappear. The yield averages in fair seasons, we understood, a ton and a half to the acre. Some portions never plowed, are considered nearly if not quite as productive as the rest. Mr. A. is by degrees seeding it all down, putting in wheat or oats with the first year's growth of grass and clover. The crop is now promising finely, as we believe it is, indeed, generally through the State and elsewhere.

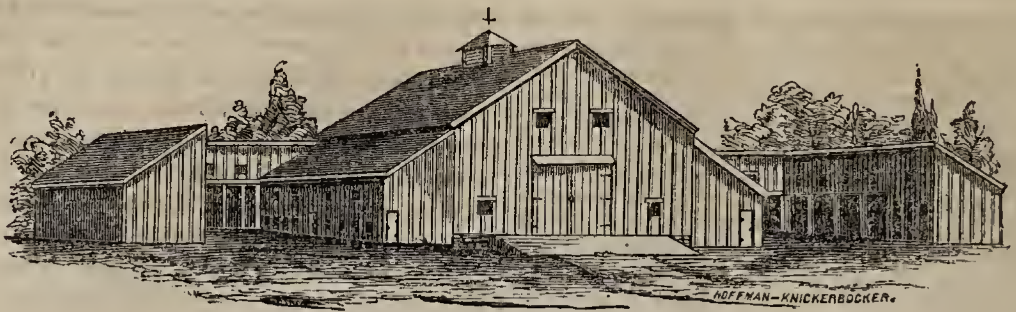
A very remarkable fact connected with the depredations committed by mice the past winter, on fruit and even forest trees, as have been already noticed in our paper, is the injury they have also done the grass. Portions of Mr. Allen's meadows and pastures are covered with a perfect net-work of their trails, as they have eaten it away in burrowing beneath the snow. They have mined under stumps and fences like woodchucks, barked the trees, of every size, sometimes to the height of three or four feet, eaten off every green thing, not even sparing some wormwood plants, and occasioned losses to be estimated by years as well as dollars. So thoroughly have they devoured the grass and its roots in some of the meadow land, that Mr. A. calculates the hay crop will be nearly *one-third* less for their depredations.

The Pastures.

Mr. Allen is by no means an anti-shade-tree farmer. In clearing, he left now and then surviving representatives of the old forest race, and some of the finest positions are occupied by beautiful groves of second growth, comprising young trees of various kinds, in the care of which he takes a great and almost paternal pleasure. Not that all the pastures are shaded—they extend nearly a mile along the western bank of the island, and comprise some of the best of land as well as of the most beautiful locations. Here we found

The Herd

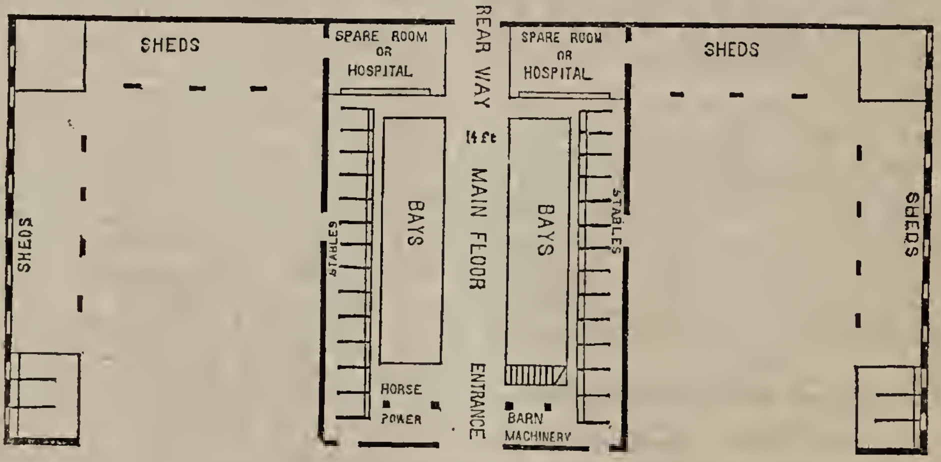
Of Devons, about forty in number, and in addition nearly as many Short-Horn grades. The Devons include some excellent specimens of the breed—for example, the $100 prize cow at the Springfield U. S. Ag.


HOFFMAN-KNICKERBOCKER.

MR. ALLEN'S BARN—ELEVATION

Society's Show, and a young cow, 4 years old, of Mr. Allen's own breeding, and a beautiful animal. They are from Mr. Stevens' and other importations, and were looking well, considering the severity of the past winter, which has been found very hard for stock generally. Very good bulls are the two which he now uses, one quite young, and both having many of the finest points of the Devon strongly marked. We understand that he intends disposing of a part of his cattle, as well as some of his sheep before another winter.

There are of the sheep, between six and seven hundred—Cotswolds and South Downs. They originated mostly with importations made by Mr. Rotch of Otsego Co., though some of the former were first brought over by Messrs. Corning & Sotham of Albany. But both have been so long on the farm, as to have become pretty well naturalized. They have found the winter a hard one, but are now in a thriving condition. About one hundred are wethers, for which there is always a good demand among the butchers. They averaged perhaps four pounds of washed wool at last year's shearing. Of the fourteen bucks, there are one or two South Downs which Mr. A. considers equal in breadth of back, round and well-filled forms, and other good points, to many of the latest importations, though the latter are somewhat superior in size.



GROUND PLAN.

Mr. Allen's orchards have suffered much from the mice, and he will, perhaps, some time give an account of his losses to our readers. He has nearly fifty acres of apples left uninjured, and promising a good yield.

Buildings.

Mr. Allen finds what is called the *plank house*, which style of building is much in vogue in that part of the State, exactly what he wants for tenant use. He has just been putting up one 14 by 22 feet, and another 16 by 28—the former costing only from $125 to $150, and the latter about $200. They are commodious and durable, as well as cheap, and very neat in outward appearance. Of his excellent barn a description has already appeared in the Transactions, and in our Annual Register for this year. But as many of our readers may have met with neither, and as the plan has some important conveniences, and though very large, admits of any reduction in size, we quote the description given in the latter, which is closely condensed, conveys some important suggestions, and is accompanied by figures which add much to its value.

The body of the main barn is 100 feet long by 50 feet wide, the posts 18 feet high above the sill, making 9 bents. The beams are 14 feet above the sills, which is the height of the inner posts. The position of the floor and bays is readily understood from the plan. The floor, for a *grain* barn, is 14 feet wide, but may be contracted to 12 feet for one exclusively for hay. The area in front of the bays is occupied with a stationary horse-power, and with machinery for various farm operations, such as threshing, shelling corn, cutting straw, crushing grain, &c., all of which is driven by bands from drums on the horizontal shaft overhead, which runs across the floor from the horse-power on the other side; this shaft being driven by a cog-wheel on the perpendicular shaft round which the horses travel.

We would suggest an addition to the machinery, not mentioned in the description. In a barn like this, holding a hundred tons of hay, the labor of pitching up to the upper part of the bays is formidable. We would therefore propose the use of an *elevator*, like that of the best modern thresning machines, to be worked by the two horses removed from the loaded wagon of hay to the horse power, during the pitching off of the load. This would greatly lessen the labor and quicken the operation of unloading. The same elevator would be used in carrying threshed straw from the machine to the bays. The simplest and best elevator for this purpose is made of a light, inclined board platform, four feet wide, on each side of which a rope or endless chain runs, connected by cross-bars, a foot or two apart, which slide over the upper surface of this platform, and sweep the hay upward as fast as pitched upon it.

A passage four feet wide extends between the bays and the stables, which occupy the two wings. This extends up to the top of the bays, down which the hay is thrown for feeding, which renders this work as easy and convenient as possible.

The floor of the main barn is three feet higher than that of the stables. This will allow a cellar under it, if desired—or a deeper extension of the bays—and it allows storage lofts over the cattle, with sufficient slope of roof. A short flight of steps at the ends of each passage, admits easy access from the level of the barn floor.

The line of mangers is two feet wide. A manure window is placed at every twelve feet. The stalls are double; that is, for two animals each, which are held to their places by a rope and chain, attached to a staple and ring at each corner of the stall. This mode is preferred to securing by stanchions. A pole or scantling, placed over their heads, prevents them from climbing with their feet into the mangers, which they are otherwise very apt to do.

The sheds, which extend on the three sides of the barn, and touch it at the rear end, are on a level with the stables. An *inclined plane*, from the main floor through the middle of the back shed, forms a rear egress for wagons and carts, descending three feet from the floor. The two rooms, one on each side this rear passage, 16 by 34 feet, may be used for housing sick animals, cows about to calve, or any other purpose required. The stables at the front ends of the sheds are convenient for teams of horses or oxen, or they may be fitted for wagon houses, tool houses, or other purposes. The rooms, 16 feet square, at the inner corners of the sheds, may be used for weak ewes, lambs, or for a bull stable.

Racks or mangers may be fitted up in the open sheds for feeding sheep or young cattle, and yards may be built adjoining, on the rear, six or eight in number, into which they may run and be kept separate. Barred partitions may separate the different flocks. Bars may also enclose the opening in front, or they may, if required, be boarded up tight. Step ladders are placed at convenient intervals, for ascending the shed lofts.

A granary over the machine room is entered by a flight of stairs. Poles extending from bay to bay, over the floor, will admit the storage of much additional hay or grain. As straw cannot be well kept when exposed to the weather, and is at the same time becoming more valuable as its uses are better understood, we would suggest that the space on these cross poles be reserved for its deposit from the elevator from threshing grain, or until space is made for it in one of the bays.

A one-sided roof is given to the sheds, (instead of a double-sided,) to throw all the water on the *outside*, in order to keep the interior of the yards dry. Eave-troughs take the water from the roofs to cisterns. The cisterns, if connected by an underground pipe, may be all drawn from by a single pump if necessary. The quantity of water thus afforded appears to be much under-estimated in the article accompanying the description, where it is stated to be *five hogsheads* per annum from a roof of ten feet square. Now, instead of this small amount, no less than *thirty-six* hogsheads are yielded by three feet of water, the average annual fall in the Northern and Middle States—as a computation will at once show. The whole roof of the buildings, of the size here given, has over 12,000 square feet of surface, if we estimate correctly; this would give, as a daily average, twelve hogsheads of water, or twenty-four barrels—enough to water nearly a hundred head of cattle the year through. But if the cistern water were only used during the drouth of summer, there would be enough for three times this number. But as the whole yearly amount would be over four thousand hogsheads, the cisterns should hold at least a fifth of this quantity, if used constantly, or more than half this amount if used only in summer. Very few men would make them one-quarter the required capacity. This is a thing singularly overlooked.

An important advantage of placing the stables in the wings of the barn is, that it obviates the common objection that liquid manure from the stalls rots the sills—the stable sills being comparatively easily replaced if not under the main barn.

This barn is the re-construction of an old one, the convenience of which has been proved by twenty years' use by the owner, who is so well known as one of the best and most enlightened of distinguished American farmers.

We wish to add, before concluding, a single remark on the manufacture of composts, alluded to in the description of the barn. Drawing out manure frequently, spreading and plowing in at once, are recommended in preference to composting. But as this is impracticable at all times of the year, we have found a better way, to draw out often, and, instead of applying at once, to compost it *in the field* where wanted, by alternate layers with fence-corner turf, plowed sods, &c. These retain all the volatile parts, and all the advantages of rotted manure are secured, with no extra *drawing of heavy materials.*

A Scioto Valley Letter.

We pass by a pleasant call—after a night-ride from Buffalo to Cleveland,—upon our friend Thomas Brown of the *Ohio Farmer*, to whom we are indebted for many favors, and whose excellent paper we are glad to find in high estimation, as it well deserves to be, among the farmers of the 'Buckeye State' generally. Indeed it is difficult to say which is the more popular, it, or its Editor,—both being known and read of all men.

Another afternoon and much of a night on the railroad, brought us to Cincinnati, passing through Columbus without a stop,—which we are in hopes of making on our return. The 'Queen City' was then in the midst of its presidential manufacturing, with the aid of thousands of outsiders—the largest gathering, according to all accounts, ever witnessed on such an occasion. The witching hour of from two to three A. M., was spent in the pleasing search for a bed—a curiosity only enjoyed by earlier arrivals,—and which being at that time altogether out of the question, we were glad to take the first train for Chilicothe at half past five.

A town of perhaps 8,000 inhabitants, it lies in the midst of a valley celebrated the world over for its remarkable fertility. The Scioto river with its tributaries, drains or enriches a region, it may be twenty miles in average width, and extending from the capital to the southern boundary of the State—much of it in farms of considerable size, and on which careful and economical systems of culture have taken the place of the exhausting modes frequently in vogue on rich and productive soils. Great numbers of stock are here fed for the Eastern markets, and corn is consequently an important crop. Wheat is also largely grown, oats to some extent, but comparatively little, we believe, of other grains. As to pasture lands, we never before conceived the full force of the expression "living in clover;" fields of this plant, just then red with a matted and perfumed covering of blossoms, were as beautiful a sight to an agricultural eye, as they could have been grateful to the palate of the most epicurean Short-Horn. Clover is also found, aside from the stock-product, to be the best and only necessary manure, for which purpose, both here and in the valleys of the Miami rivers, it is largely grown. It is generally turned in, the second or third season, effecting a rotation of say six years with crops of corn and wheat. It has made a very good growth this spring, though the grass, owing to a protracted drouth, will not apparently yield as heavy a hay crop as in our own State. Wheat is looking finely—frequently, we should judge, promising thirty to thirty-five bushels to the acre, though this is considerably more than the average product of the region, and is thought a heavy yield for large fields without extra care. The Mediterranean and Genesee (white) are both extensively sown—the former being found, as we understood, much the less liable to rust of the two. We saw, what we never saw before, large bins of corn by the roadside, made of ordinary fence rails, the corn in the ear as it was first husked after last year's harvest, and ever since entirely unprotected by roof or covering of any kind—which cheap and easy way of storage is not uncommon, we were told, in the Scioto valley. It is, as might be expected from its beauty and fertility, a healthy country; but the unusually wet weather of last year, which is supposed to have had much to do in producing the plague of mice in our own State, here lent its influence to the propagation of ague,—which was quite prevalent last fall, and is somewhat so this season,—for the first time, they told us, since one or two similar seasons twenty-five or thirty years ago. The severe cold of last winter has done much injury to orchards and gardens through the State, where, as in other parts of the country, it was unparalleled both in degree and continuance. It may be a fancy of ours, or perhaps because they are now in their fullest June verdure, but we thought we had never seen forest and shade trees so beautiful as along the Scioto. It was, at any rate, refreshing enough to ride or rest beneath their graceful branches,—the swaying of which with the wind, as well as the surging waves in the grain and clover fields, we saw as finely produced as ever they were described or imagined by rural poet.

A call on Gen. WORTHINGTON, ex-president, and still a member of the State Board of Agriculture, afforded us much pleasure. He occupies a farm of 760 acres, a mile or two out of Chilicothe, beautifully located—about 200 of it in corn, 160 in wheat, and the balance mostly in grass. The mansion, which was built in 1808–10, is one of the large and substantial structures of "old times," and occupies a commanding situation. From the roof, one can obtain a good idea of the direction and extent of the Scioto Valley. In the south-east are seen the last peaks of the Alleghanies—not very far to the west begin those extensive plains which stretch hundreds of miles away in the successive prairies of Indiana and Illinois. General Worthington's pet appears to be his garden, in which he has a fine variety of herbaceous and flowering plants, also a number of fig trees, which generally produce well, though many of them have been this year cut down by the cold. He tries experiments with Patent Office and other foreign seeds to a considerable extent,—some of the results of which we should like to have had a little more space to chronicle. He told us that on December 24th last, he picked quite a bouquet of late roses and other autumn flowers, the weather by no means threatening any unusual severity, and on the next day came the snow, which lasted, with prolonged and extreme cold, through the whole winter.

Dr. ARTHUR WATTS, who is well known as a prominent member and one of the agents in conducting several of the importations of the Scioto Valley Importing Co., farms a thousand acres below the town, nearly one-half of it in corn—which crop, by the way, is thought a little backward, though favorable weather this and next month will make it all that can be wished. One lot, in wheat, of one hundred and twenty acres, and another of forty, were looking finely. Ninety-three acres of clover, in one field, was used as a pasture for fifty head of cattle, but the stalks and flowers seemed as tall and thick as though it was ungrazed meadow, and remarkably good at that. The Dr. s herd includes about thirty animals, imported and of his own breeding—the demand for improved stock having been so great, we were informed, that he has sold nearly all that he could afford to part with without the loss of its best blood. Among the noteworthy animals, are the bull 'Medallist,' white, imported by the company in 1852, and purchased of Mr. Torr of Lincolnshire—generally good, as for example in flank and back, and especially so in the twist; its bull-calf 'Lewis F. Allen,' roan, 8 months old, and promising to vie with its sire's merits; the cows 'Strawberry,' about 8 years old, an animal of great fattening disposition, and her twin offspring 'Bessie Bell' and 'Mary Gray,' sired by 'Prince Albert 3d,' now in Illinois, and the first prize taker at the last Columbus show; a nice heifer from Mary Gray by Medallist; 'Arabella 3d,' 'Flora,' in poor condition but a good milker, and another heifer, 'Gertrude,' a yearling, and rather the pet of the whole. We saw also the imported cow 'Sunrise,' belonging to JOHN I. VAN METER, by whom she was purchased of the company for $1300. We should not omit to mention, in conclusion, the Berkshire and Irish Grazier Hogs, to which Dr. WATTS devotes some attention.—In the midst of the best Scioto land, he knows how to improve to a great degree the advantages he possesses. We should not omit to add a word of thanks for his polite attentions, as well as those of several others in Chilicothe.

Thence we had a very pleasant drive of nineteen miles to Circleville, distant about thirteen from which is located the farm and extensive herd of HARNESS RENICK, Esq., which we had hoped to visit, but found it impossible to obtain a conveyance for the purpose, on account chiefly of the sale of GEO. W. GREGG, some notes of which we give in another column, and where we were pleased to meet a number of distinguished stock-growers—among them Messrs. JOB RENICK, H. H. HAWKINS, Hon. R. F. CORWIN, Mr. REBER, of the enterprising firm of Reber and Kutz, owners of 'Monarch,' 'Fashion,' and other blood stock, and a fine herd of short horns,—and several others. We were anxious to arrange it so as to have been present at the sale of Mr. Renick on the 19th, but time being very limited could not do so, and, taking the cars the same evening we accompanied Mr. Hawkins to his pleasant residence in Bloomington. The next morning (June 6th) was chiefly spent in looking over his farm—about 400 acres, nicely situated, and mainly devoted to stock purposes.

The herd of Mr. HAWKINS includes a number of noteworthy animals. 'Wellington,' owned by him in connection with one or two others, was imported by the Clinton Co. Association in 1854, and sold by them for $3700. He was bred by R. Lawson, is near four years old, and is brother to 'Starlight,' imported in '53, by the Madison Co. Association. 'Locomotive,' white, is three years old, descended from 'Morgan,' bred from the Scioto importations of 1834, and is a superior animal. 'Bracilia,' a fine cow, traces her origin to the 'Durham cow' of Col. LEWIS SANDERS' importation of 1817, crossed with Scioto importations of '34 and '35. A heifer from her, 'Favorite,' now nine months old, promises to equal her mother. 'Rosamond,' 'Lady Mulenburgh,' and several of which we have no room to speak in detail, are also very creditable animals, and go to form a collection of no little beauty and value. Mr. HAWKINS is the possessor besides of some nice Berkshires,—also a very commodious and well arranged barn. In the course of the morning we drove over to the farm of the Messrs. PERRIL, the owners of 'Count Fathom,' imported, and other valuable, thorough-bred stock. They have a farm of 1500 acres, devoted to grazing, and conducted with much skill and care.

We will close this already long letter by a brief paragraph in relation to the stock companies of Ohio and their importations, inasmuch as we have seen all we can of them and their descendants at least for the present. There are still however one or two localities we intend, if possible, to visit in returning. Before 1834, as our readers are probably aware, there had been few or no improved cattle in Ohio, with the exception of crosses with the "Patton" stock, as the English long and short horns, brought over from Kentucky were called, from the name of the gentleman who first introduced them into that state. The famous importations of Col. Sanders in 1817, added much to the value of the Kentucky cattle, and it is said that a drove of the improved stock, passing through Ohio to the east, first led to the idea, with Govs. Trimble and Vance, and Messrs. Felix, George and William Renick, Thomas Huston, M. L. Sullivant and others, of forming a company for the purpose of effecting a similar advancement in the cattle of Ohio—which was accordingly done, and Felix Renick acted as principal agent in selecting about 20 head, which were brought over in 1834. This was followed by numerous importations at different times in subsequent years. In 1852 a new company was formed in the Scioto Valley, including some members from Clarke, Clinton and other counties, and Dr. Watts and George Renick, Jr. acted as agents in procuring 19 head or thereabouts. In 1853 an organization was effected in Madison Co., among the importations of which were 'Sheffielder,' 'Starlight,' his brother 'Colonel,' and Marquis—the second purchased after his arrival by a Union Co. company for $3000. Messrs. Coulter & Hawkins were the agents of an association formed in Clinton Co. late in 1853, which brought over in 1854, a fine selection, embracing 28 head—among them 'Wellington,' already mentioned, 'Warrior,' bred by Richard Booth, the second of his breeding that ever came to this country—the first 'Thornberry,' which we should have mentioned with the Madison Co. importations of 1853, being now owned by Harness Renick of Pickaway—and several excellent cows, among which 'Duchess,' bred by Wm. Harrison, brought $1675, and 'Victoria' $1,000. A Clarke Co. importation made in 1854, through the agency of Dr. Watts, we think concludes the list. These companies have done wonders for the stock of Ohio, and we were glad to learn that most of them have been immediately profitable investments, as they must have been, at any rate, in the long run profitable for the country and for the individuals engaged.

We reached Cincinnati a second time Friday evening, and lay awake a large portion of the night, with one cannon, two drums, several trombones, and a large crowd of the enthusiastic and unterrified, under the hotel windows, rejoicing over the nominations, and practicing variations on the war whoop, indiscriminately mingled with Yankee-Doodle in a loud key and speeches still louder.

The Apple-Tree Borer.

Messrs. Editors—I wish to inquire through your columns, if there is any preventive of the ravages of the *borer* in young apple-trees, short of cutting them out with a knife? I have a young orchard which originally consisted of sixty trees, from which the borers are thoroughly hunted spring and fall. The field is cultivated every year with some low hoed crop. The trees washed in spring with strong soap suds, and sometimes a bushel of leached ashes heaped around the trunk in the fall and hoed in around the tree the following spring; and yet I shall be unable to bring one-half of the original number into bearing, while the borer will secure the lion's share. I have read of drawing them from their hiding place with a small hooked wire, but as they fill their holes with the woody fibre which they eat away in their progress, *my* skill is entirely insufficient to reach them in this manner. Being unwilling to do without fruit for myself and family, information as to how to prevent the ravages of these *workers in darkness*, would be thankfully received. Vermonter.

If the borer is taken *in time*, there is no difficulty in destroying it by punching it to death in its hole with a flexible twig. The peculiar crushing tells at once the death of the destroyer. It is of course necessary to do the work *thoroughly*, as often as two or three times a year, at least. A sharp wire with a barb, would probably clear out any hole of anything left by the insect. We have seen trees rescued by this process, in which the borer had made great progress, and had perforated it in all directions; but it requires close attention and vigilance. Young trees, in which much injury has not yet been committed, may be easily kept clear, if often and thoroughly examined, not forgetting that the holes by which the trees are entered may be buried by transplanting, below the surface.

Raising Pear Seedlings.

Messrs. Editors—I have been a reader of your most excellent paper the past four years, and I wish to inquire if pears can be raised from the seed in this State. If so, what soil would be suitable, and where could I get good seeds? How can I tell good seeds, and what is the price? Geo. Sherman. *Huron Co., O.*

Pear seedlings may be grown in any part of the country, where a good, strong, fertile soil exists. The great difficulty, however, which is found to exist in all parts of the country, is the *leaf-blight*, occasioned by a rust or parasitic fungus on the leaf, occurring in summer and checking the growth. It is best avoided by planting the seed in *new* land of strong fertility, away from other trees which have been affected. Many nurserymen, however, prefer to import their seedlings from Europe, where the leaf-blight is not so formidable.

For raising standard trees in the nursery row, a *clayey* soil is generally found much the best—in some instances the difference between clay and gravelly loam has proved very great, the growth the first season from the bud sometimes being five times as great on a clayey soil as on one equally fertile but of a sandy or gravelly character.

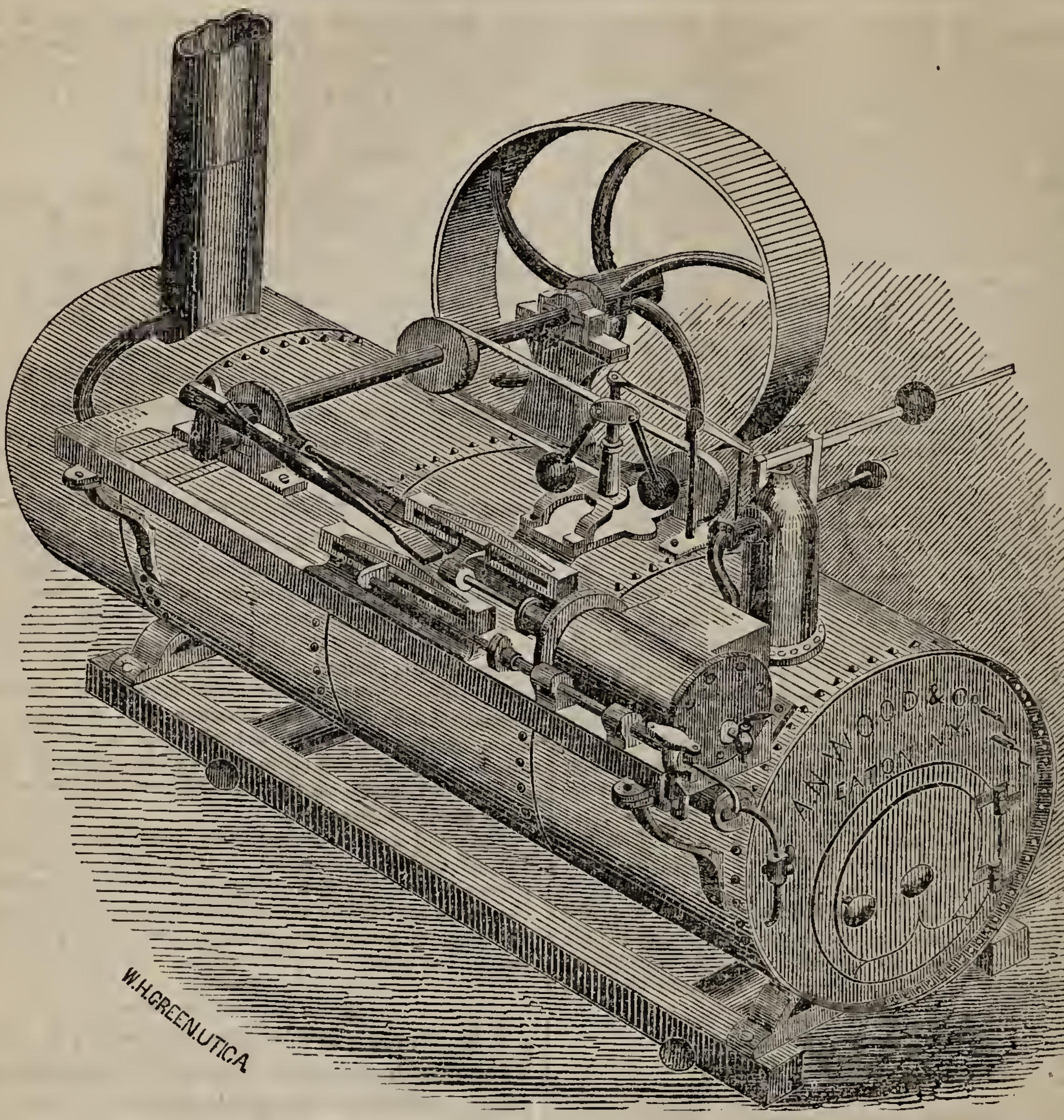
The seed are difficult to procure, being only occasionally found in market G. G. Sheppard, 159 Front Street, New-York City, sometimes has them on hand. The price is three to five dollars per quart. The quality may be known by splitting them open; if fresh, white, and plump, they are good.

Trees Injured by Mice.

J. H. Wright, in a late no. of your paper, says—"the mice have made sad havoc with nurseries and young orchards in this whole region so far as he can hear," and then he inquires for a "preventive for the future." Judging from my own experience in this matter, there is no certainty that the mice will injure fruit or any other trees in his vicinity the coming winter. This section of the country was overrun with rats and mice in the years 1850 and 1851; the damage done to fruit and forest trees by their debarking them, and the loss in hay, grain, and other farm crops, was immense. So abundant were they in those seasons, that boys became wearied out in slaying them, and all the cats were surfeited into uselessness by a superabundance of mouse-meat. The following winter, no injury was done to fruit or other trees, or to grass grounds; so the next summer, nor since, have they done any serious damage to farm crops. Where such myriads of rats and mice came from, and where they went to, none can tell; and what *besom* of destruction was called into requisition to thus suddenly sweep them from our midst, is among the mysteries that man cannot solve. We hope Mr. W. and others, in regions where these *varmints* have been so abundant, may speedily meet with the same happy riddance that we have. Levi Bartlett. *Warner, N. H., May, '56.*

Different Breeds as Layers.

E. A. W. of this city, who has fine specimens of different varieties of poultry, informs us that from April 1 to the 21st, six of his Black Spanish hens laid 64 eggs—five Game, 39—four Bolton Greys, 47—two Speckled Dorkings, 20—two Buff Shanghais, 18—two White do., 19—making 207 eggs from 21 hens in 21 days.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A. N. WOOD & CO.'S PORTABLE STEAM ENGINE FOR FARM PURPOSES.

Portable Steam Engine for Farm Purposes.

Steam engines are in common use in Great Britain for farm purposes; and in all the modern farmeries of England provision is made as regularly for the steam engine as for the threshing machine, chaff-cutter, &c. As yet they have but rarely been employed for farm purposes in this country. We cannot doubt however, but that the time is rapidly approaching when our large farmers will find their employment a profitable investment, and we take pleasure in copying the following account of the introduction of one into the farm operations of our friend J. A. Humphreys, Esq., of Versailles, Ky. It is from a letter written by him to one of the editors of the *Valley Farmer*, from which paper we copy it.

You request me in your letter to furnish you with an account of my "Portable Steam Engine for Farm Purposes." which I do with pleasure, fully assured that the substitution of such a steam power, on all our farms of moderate size, is only a *question of time*.

The Engine as yet has been tried only under the most unfavorable circumstances. Standing out doors, entirely unprotected, the weather intensely cold, the wood green, the machinery all new, many little advantages not given it,—yet it more than equalled my expectations, and gave entire satisfaction to all who saw it work. I tried it threshing grain with perfect success—not using more than one-third the amount of steam which was kept up, without the least difficulty—nor did there appear to be the least danger of setting fire to the straw. I then tried it crushing corn in the cob with one of Pitt's Crushers, which I have had in use for the last four years, and though it was dull, and many of the teeth broken, with *such* an application of power, I never saw better nor faster work done. I also tried the engine cutting straw, corn stalks and hay with equal success, using one of Sinclair's 13 inch cutters. I was satisfied that the engine could have driven the three machines all at the same time. Will the Engine do? is a question quite settled with me, and in future I shall use it as a motive power for all the machinery on my farm, to which power can be conveniently applied. The space occupied by my engine is 6 by 9 feet. The boiler is 41 inches in diameter, and made of the best No. 4 Philadelphia stamped iron. The exhausted steam passes into the smoke pipe, killing all the sparks. The smoke pipe is 19 feet high and 12 inches in diameter, which gives a strong draft. The whole machine is mounted on a strong iron truck, with wheels 20 inches in diameter, and can be easily drawn to any part of my farm by four horses. My engine can be worked up to about an eight horse power. The weight, including the truck, is 4900 lbs. These engines are manufactured by A. N. Wood & Co., [of Eaton, Madison Co., N. Y.,] and for compactness of form, simplicity of construction, arrangement of working parts, durability and good workmanship, they can scarcely be surpassed. They are easily managed, as you may judge from the fact that mine is being *safely* run and perfectly well attended by one of my negro boys, who had never so much as *seen* an engine before. The price at which these engines are afforded places them within the reach of nearly every farmer. They are made from 2½ to 10 horse power, costing from $225 to $835. My engine consumes from three to four barrels of water per day, and about a quarter of a cord of wood.

In a later letter from Mr. HUMPHREYS, in answer to another inquiry, which we find in the Penn. *Farm Journal* for May, he says that since the above was written, he has given steam a more thorough test, and made the most satisfactory additions to his stock of experience. From this letter, we quote as follows:

There are several manufacturers, who are making different styles of portable engines. I much prefer the one I have, made by A. N. Wood & Co., to any other with which I am acquainted. I shall not attempt to give you a description of the plan and arrangement of the engine. I will only say that it is admirable for its simplicity, its perfect workmanship, and the strength, durability, and *completeness* of the whole. There is but little room, it seems to me, for improvement in it. I only regret that all of your readers who feel an interest in the matter, could not satisfy themselves of its great simplicity, and the ease with which it can be managed—even by the most inexperienced hand—by seeing for themselves, rather than from any written description.

Now for the labor of running it—for this only one hand is required; he can run the engine, keep up the fire, oil the parts, and do all that is necessary about it, with the greatest ease. I have run my eight horse engine all day, and consumed but four barrels of water and one-fourth of a cord of wood. If pushed to its utmost capacity from daylight until dark, it will consume a little more. My engine has been in use since the middle of January last—*not a screw loose yet.* It works with as much regularity and precision, and as smoothly, as a patent lever watch.

My principal work has been preparing food with corn crushers and straw cutters for one hundred head of mules and about one hundred head of cattle and horses. With one of Sinclair's cylindrical screw propeller cutters, I have cut up a *four-horse* wagon load of oats in *twenty-two minutes*, and one hundred and seventy-seven large bundles in fourteen minutes, not using more than one-third of the power of my engine. I consider Sinclair's straw cutter one of the most efficient now before the public. I use a corn or cob crusher, made by John A. Pitts, of Buffalo. I have tried and seen tried many others, but none of them are at all comparable to it, in my judgment, either as regards efficiency, durability, or convenience. The one I have has been in use for four years, and when the steel plates or knives are worn out, a new set can be put in at a trifling cost. Driven by my little engineer, it easily crushes thirty bushels of corn in the ear per hour, making finer meal than I have ever seen made by any other crusher. I am now making my own meal with one of Isaac Straub's corn mills, the "Queen of the South." These mills are too well known to need any commendation from me. The size I have is a twenty-two inch burr, for which my engine proves to be an admirable power. For threshing it is unequalled. I have just given it a most satisfactory trial with one of Moffit's patent eight horse separators, manufactured by Messrs. Owens, Lane & Dyers, of Hamilton, Ohio. The machine was put in operation under the direction of Mr. Owens, who came over from Ohio especially for that purpose. He expressed his decided opinion, that the engine was far superior to any horse power he has ever seen applied to one of his machines.

Mr. Straub, of Cincinnati, has contracted to furnish me with one of his portable saw mills—"the King of the Woods,"—which, driven by my engine, he guarantees will cut fifteen hundred feet of plank per day, in our hard wood—maple, ash, oak, elm, &c. I feel perfectly assured that there is not a machine in use on our farms, to which power of any sort can be applied, which this portable engine will not drive, and prove the most efficient and also the most economical power. I shall apply it to shelling corn with Reading's patent corn sheller and cleaner, Emery's cider mill, and other machinery.

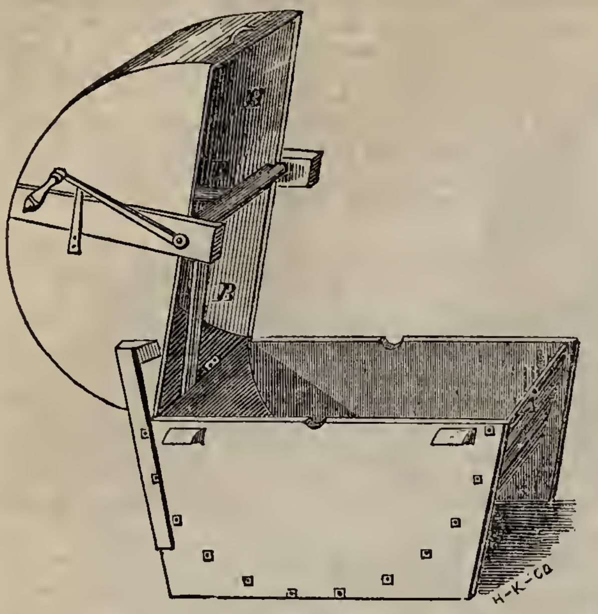
I must not fail to call attention also to the great utility of the engine in steaming food for stock. A steam gate and pipe leading from the dome to the steaming box or trough is all that is necessary. After the work of crushing or cutting is done, the amount of steam remaining in the boiler is sufficient to cook a large quantity of food. I have for nine years used horse power for all purposes to which I have lately applied steam, and my experience so far satisfies me that steam has greatly the advantage in point of economy, and I now offer all my horse powers for sale at greatly reduced prices.

We learn from Messrs. A. N. WOOD & Co., that out of the large number of steam engines manufactured by them the past year, they sold six for farm use—two to Louisiana, one a 6, and the other 2½ horse power—two (both eight-horse,) to Kentucky, and two in this State, both four-horse—and that in every case they have given entire satisfaction—so much so that they anticipate a rapid increase of the demand for them as their value becomes known to the planters of the South and the large farmers of the West.

Cut Feed Mixer.

MESSRS. EDITORS—Any one who has ever attempted to mix cut feed, in the usual way, knows how difficult it is to do it perfectly. The water seems to have a particular fancy for the bottom, and in such weather as we have had the past winter, it is nearly impossible to prevent some of it remaining there, in the form of ice. Our feed tub collected, between Jan. 1st and Feb. 15th, nearly one foot in depth of solid ice, in spite of much pains taken to prevent it. To avoid the difficulty, I constructed a feed box, which, after a month's trial, I have no hesitation in recommending to my brother farmers as a labor-saving machine. It is very simple in its construction, as will be seen by the accompanying drawing. The box, internally, is a semicircle, which with the lid when closed, forms a circle, 4 feet in diameter by 2 feet in width. The bottom is made of a sheet of galvanized iron, 6½ feet long by 2 feet wide. The sides are pine boards, and are grooved to receive the edges of the bottom, which is kept in place by small rods which run through from side to side. A strip of board, A, runs across the front end, and is grooved on the under edge to receive the end of the sheet iron. The opposite end is bent around a rod, and forms the lower half of the hinge. B, B, B, are arms or sweeps, placed, one near each end of the axle, and one in the middle, and at right angles with each other, leaving one side vacant; otherwise the feed would prevent the lid from shutting down. C, is a steel spring to hold the crank and arms out of the way in filling and emptying, and also to keep the arms in the right position for closing the lid.

It allows the crank to turn forward freely but not backwards. The crank arm should be at least two-thirds as long as the sweeps; otherwise it will turn too hard; and for a large box, calculated for mixing more than 3 or 4 bushels at once, it would be advisable to have a pair of gear wheels, to increase the power.



The top of the lid is made of half inch whitewood boards matched. In using it, the ingredients may be thrown in at random,—the water first is more convenient—when a few turns of the crank, occupying less than a half minute's time, will do the work perfectly.

If no more water is used than the feed can hold, not a drop will be left on the bottom; the first turn of the crank bringing it uppermost. Not a particle of ice has formed on the bottom of the box, and but little on other parts, although we have used it when the mercury stood at 6 degrees below zero. It distributes the water so evenly that a very little is found to be sufficient to make the meal adhere to the chaff, which makes the feed preferable for stock in very cold weather.

The bottom of the box might be made of wood, but would I think be more likely to collect ice. I find that an iron sink makes less ice than a wood one, and whenever the mercury rises a few degrees above the freezing point, it soon becomes loose, which is not the case with a wooden one. The box is painted on the inside, and to avoid chafing it off, we use a wood bladed shovel for taking out the feed. It will hold 5 or 6 bushels. A smaller one would answer a good purpose, and occupy less room.

I would not be understood to recommend my box for mixing small quantities where the meal used is nearly equal to the chaff in amount, as I think it would adhere to the box considerably. But such is not the custom with farmers generally.

My own practice is to cut my coarse fodder, and add meal enough to make it equal to good hay. I do not agree with those who recommend farmers to cut all their fodder, as I do not think it will pay at the present price of labor; but I do advise the farmers on our New England hills to feed out their grain with their coarse fodder, and sell their marketable hay, rather than impoverish their farms by selling grain. It requires no argument to prove, that with a convenient market, the hay from an equal amount of ground will nett them the most; and all experience proves will injure the land the least. But where there is not a market for hay, the high prices of cattle and dairy products renders it doubtful whether it is profitable to sell either hay or grain. Let the valleys and western states supply the grain market.

Cut feed is undoubtedly best for work horses, and clover hay should never be fed to them dry. Green clover makes excellent feed, particularly for milch cows, but is not relished by cattle when dry, owing probably to the choking dust from the down which covers every part of it; as when cut up and moistened they eat it freely. To make it feed freely into the cutter, before pitching from the mow, cut it with a hay-knife into strips from 5 to 10 inches wide; then with a platform at the rear and on the left of the machine, one man alone will cut nearly as fast as two will in the usual way. H. V. Welton. *Waterbury, Ct.*

P.S. In a later letter from Mr. W., he says—"Since sending you the drawing, I have made an important improvement, and to any one who will go into the manufacture of them and sell them at a fair price I will give all the information in my power. I have no desire to make a speculation out of it.

Seeding Grass Lands.

G. H, in the Co. Gent. of May), wishes to know if seeding with buckwheat will do. My experience teaches me not. The buckwheat, if the land is rich enough for good meadow, will grow so rank as to kill out the grass seed. I have, after several unsuccessful attempts at seeding moist lands after a crop of grain, found it the most sure way to seed as early in the spring as practicable, to grass seed alone, using one-half herds grass and half red-top, always mowing a good crop the first year, and still better after, until the grass gets "bound out," when I turn the sod as smooth as possible, if the ground will admit, with a double Michigan plow, as it pulverizes the ground so nicely, and seed anew. If done the last of August or the first of September, with a sprinkling of fine manure on top, you will get a very heavy crop the first mowing. Meadows treated in this way last longer, and produce heavier crops than those seeded after a grain crop, which is very exhausting to the soil, and leaves the grass roots feeble and liable to be killed out in winter. My moist lands are the most profitable of any on my farm. M. J. Perkins. *Cream Hill, Rutland, Vt.*

Green Crops as Fertilizers.

Messrs. Editors—In your paper of this date, is an inquiry as to the effect of turning under *green corn* as a fertilizer. I remember an experiment of the kind, made about a half dozen years since, by Dr. Andrew Nichols of this place, a gentleman of extended scientific attainments, on half an acre of ground upon his farm in Middleton. The Doctor reasoned much as does your correspondent, that the fertilizing power would be in proportion to the quantity of material used; but it failed entirely. I saw it when turned under, and completely covered with the sod. I saw the ground in July next following, when the corn stalks were about as sound as when first covered; and there was no appearance of any dissolution. Perhaps under other circumstances, it might have been done with better success;—but the Doctor was quite satisfied that the experiment was not worth repeating. I would not discourage an experiment with accurate weight and measure as you propose; but I have very little hope of its being successful.

The best illustration of turning in a green crop as a fertilizer, that I have ever witnessed, was on land upon which onions had grown for a number of years; the ground being fully manured. Shortly after the crop of onions had been gathered, it was plowed and sowed with oats. These oats were permitted to grow till late in autumn, when they were completely turned in and covered. The next spring the ground was sown with onions, with a slight top-dressing of manure. The onions flourished finely, until harvest, when over seven hundred bushels to the acre were gathered—being *thirty three per cent* more than on the same kind of land in the same field, where no oats had been imbedded. P. *So. Danvers, Essex Co., Mass., May* 8.

Horticultural Intelligence.

The last number of the *Horticulturist* contains a great deal of interesting matter. The leading article from the Editor furnishes several experiments with "feeding roots," on the same principle, (but in a different manner,) that Durhams and Berkshires are fed to produce a rapid growth. We have often had occasion to point out the error of heaping-up, or spading-in, a pile of manure just at the foot of the trunk, while the great mass of the roots needing the nourishment, were many feet or yards off from the body of the tree, and which consequently get none of the nourishment. The mode here pointed out, and formerly adopted with great success at the celebrated Dropmore garden in England, is just the reverse; and consists in beginning at a distance of ten to fifty feet from the tree (according to its size) and cutting radiating trenches towards its body, one to two feet deep. When the young rootlets are reached, they are gently raised up, and a compost suitable to the wants of the tree, filled into the trenches, in place of the dry earth, which is carted away. This mode has been more especially used for evergreens, and the composition usually found best for these, is a mixture of fresh rich mould and decayed leaves. The roots of evergreens are near the surface, and for this reason the feeding process as applied to them is quite easy. One of the experiments mentioned by the Editor of the Horticulturist, is the following:—"The experiment was tried on a Norway fir, which is still the graduated thermometer to tell of the advantages of feeding roots. It had the appearance of being quite healthy, but had been planted two years before in a clay soil, in a hole about three feet wide. We had trenches dug to its rootlets, beginning at a distance of seven feet and a half only from the tree. The rootlets were found making a vain effort to penetrate the clay which they reached the previous autumn. Additional nourishment gave continued impetus to the plant, which grew far beyond its contemporary neighbors, rarely increasing less than three feet per annum. In three years the roots were again at the borders of the clay, and, for the sake of an experiment, we then left them to battle with their difficulties as best they could. The annual growth began sensibly to diminish, till the third year its leader grew but six inches; the side branches partook of the stunting, when we relented, and gave another course of feeding by extending the trenches; the growth immediately was sensibly increased; the second year it was as vigorous as of old, and is now one of our best specimens."

PRUNING EVERGREENS.

The same article furnishes the following observations on pruning evergreens:—

It is a question not often mooted, whether evergreens do or do not require the same cutting back as deciduous trees, when removed. Our own experience indicates that a slight trimming is useful. The mode of operation on the Norway fir, for instance, is this: Cut back the limbs of last year's growth, using the dissolved shell-lac on cuts, and leaving the leader untouched. The effect is the same as that on deciduous trees, with this additional advantage: the plant throws out at least two—probably more—leading limbs, and the result is that of thickening the growth, and improving the appearance. For the sake of experiment, we carried this system to as great an extent, with a single specimen, as possible; ere many years elapsed, the limbs became so heavy with numerous branches, that they broke with their own weight. Others, cut back once in every three years, have attained rare beauty and a close habit.

CULTURE OF THE APRICOT.

An interesting communication from Mr. Tompkins of Germantown, N. Y., ten miles below Hudson, gives us some valuable facts. His soil is decidedly clayey, the growth of the tree moderate and hardy, and the crop often too heavy for its quality, the curculio finding but little encouragement in such compact ground. Last year, from 25 trees, a part of them nine years planted, and the rest within four years, there were taken 12 bushels, which were sold in New-York market at $5 to $10 per bushel, mostly at the last named price. One tree, nine years old, has averaged over a bushel for the past three years.

The fruit buds of the apricot are hardier than those of the peach; it is nearly allied to the plum, well known for its great comparative hardiness. This difference between the peach and apricot was distinctly shown in the winter of 1854—5, when the thermometer sunk to 26° below zero, destroying every fruit bud on the peach above the snow line, at the same time that large numbers of the apricot buds escaped, and subsequently came out in flower. The great difficulty with the apricot is the liability to dead patches in the bark, which often increase until the tree is destroyed. These, so far as our own observations have extended, are more frequent where there is a moist or wet subsoil, natural drainage being always better than artificial, because a naturally dry bottom extends over the whole surface. We have not found propagation on hardy plum stocks to mend the matter in such instances. We want a remedy for this evil—for the apricot, ripening as it does, a month before early peaches, and possessing much of their delicious qualities, is too desirable and valuable a fruit to throw away yet.

UNDER-DRAINING.

The editor remarks that nurserymen who had underdrained their grounds, were observed this spring to be delivering their trees *at least ten days earlier* than their neighbors who had neglected it—a most important difference for a nurseryman—and equally so for a gardener or farmer.

LARGE PRODUCTS.

There are one or two *copied* articles in this number of the Horticulturist, which furnish statements at least striking, if not entirely true. One is from the *Independence Belge*, which informs its readers that "in the Belgian colony of St. Thomas, a potato has been grown weighing more than 50 lbs." Why not "as well be hung for a sheep as a lamb," and say it weighed *five tons!!* The other is from the *National Intelligencer*, and describes the Chinese Sugar-Cane, "one acre of which produces twenty-five tons of fodder, of the most nutritious and excellent kind." This is named in connection with the Chinese Yam, to which the *China Tree-Corn*, and the *Chinese Mulberry*, should have been added.

Curing Corn Fodder.

Messrs. Editors—If it will benefit Wm. J. Pettee, of Lakeville, Ct., or any body else who desires to know the *right way* to cure corn fodder for winter use, you are at liberty to give publicity to the plan that I have adopted with unfailing success for several years. As soon as the corn is fit to husk in the fall, have it husked, and every shock tied up in bundles just large enough for one man to handle with ease; and never leave more than one day's husking out at a time, for the bundles never handle so well and so light after they once get wet. It is much better to have shed room enough prepared for all the fodder, so as to protect it entirely from the rains and sleet of winter, for wherever it gets wet it will mould, and then the stock will not eat it. Where the corn is very large, and the shocks heavy, I have them cut off about two feet below the ear, and before leaving the spot have the stump cut off at the ground. This dispenses with the labor of handling those heavy ends which the cattle will not eat, and they might as well decay and make manure where they fall, as to be hauled to the barn-yard, and hauled out again. Timothy hay, when it is plenty, is the best to make bands to tie up with, but wheat straw will do. A. Chandler. *Sandy Spring, Md.*

Mulching with Living Plants.

At the discussions of the Fruit Growers' Society of Western New-York last winter, an intelligent and skilful cultivator advanced an opinion so obviously in error, and at the same time so commonly believed, that its correction seems to be required. He said, "I believe we can ruin a soil in a few years by leaving it exposed to the scorching rays of the sun, through the long summer months. I should prefer some root crop, and I think you would retain more in the soil by keeping it shaded, than you would lose by taking a crop from the ground. Let us have crops, if it is only to keep the ground shaded from the sun." We are not surprised that such opinions as this should be common. The surface of the earth is sometimes left bare—no stirring is given to it—it becomes hard, and nearly as unsuitable for the growth of young trees as a pavement; and the few weeds that spring up do not make the case any better. On the other hand,—the ground is planted with carrots or potatoes, and the surface is kept mellow. The trees grow finely, and succeed decidedly better than in the other instance. This is considered as indisputable proof that the *crop* benefited the ground. The fact is just the reverse. The hoeing and loosening of the earth, in cultivating the crop, has proved beneficial, the crop itself is detrimental. This is most amply proved on the one hand by allowing a crop to grow, which receives no cultivation, as for example wheat or meadow; the injury to the trees has, in all cases, been found greater than in a bare, plowed field, that remains uncultivated. Nothing is more common than to lose half the young trees that are set out in a meadow or grain field. "Shading the ground" with the crop does no good. On the other hand,—repeated trials show that young trees set in ground on which *nothing* is allowed to grow but the trees, and which is repeatedly stirred, will sometimes nearly double the growth of those growing with potatoes or other root crops.

There is reason for all this. The first principles of vegetable physiology would lead to such a conclusion before a single trial was made. Plants not only withdraw nourishment from the soil, but they pump up through their stems large quantities of moisture, for the supply of the rapid evaporation which is going on through the leaves. The advocates for shading with growing plants would be surprised, should they examine the soil in which plants have grown, to find it dry and nearly destitute of moisture in time of drouth, while adjacent soil, kept bare but mellow, would show large quantities of moisture, if turned up to a proper depth. This contrast we have had occasion to observe in repeated instances. Plants will draw the water up from the soil and dissipate it in the air, several times faster than any evaporation can take place from a mellow surface. In a dry time, the celebrated Dr. Hale found that a bunch of grass threw off from its leaves enough moisture, in two minutes, to condense in drops on the inside of a glass under which it was placed, and to run down the sides. No bed of mellow earth could do this.

Many cultivators of young fruit trees have discovered by experience that a growth of weeds and grass is highly detrimental. But what essential difference there is between the growth of weeds and of any cultivated crop, so far as its influence in exhausting the soil, and exerting a prejudicial influence on young trees is concerned, they appear never to have thought of. However, so long as trees are looked upon as a sort of fag end of the vegetable kingdom—that is, so long as they are expected to take the last chance in cultivation,—it is better to plant a crop of potatoes or turnips among them, for the sake of the good treatment which the root crop is sure to receive, although worth far less than the trees which are thus indirectly benefited.

Mulching—or shading the ground with *dead* vegetable matter, which can take nothing from the soil,—is a very different process from the objectionable practice we have spoken of. But one of the best kinds of mulching, is when the operation is performed with *pulverized earth*. It is quite as good as saw-dust and tan-bark, more easily procured, and more readily got rid of when the process ceases. The only difficulty is, the pulverizing process has to be occasionally repeated with the rake, hoe, or cultivator, in order to break the crust which gradually forms; while tan-bark and saw-dust do not form any crust; and this is the reason why the former is so often rejected by those who think the labor of pulverization an intolerable evil, and are willing to expend twice as much in carting the saw-dust and tan.

Experiments,—tried in all imaginable ways;—and *observation*;—made so repeatedly and for so long a period, as to amount to actual demonstration,—have established these simple truths in the cultivation of young trees through the summer, namely, 1. The best and easiest of all ways to keep up vigorous growth and to prevent any loss,—is to keep a clean, mellow surface, by the often repeated passing of the horse cultivator. No crop interfering, it may be done rapidly, easily and cheaply. 2. For those persons who think least of what costs them most, and *vice versa*, the next best mode is to cultivate root crops or such as require repeated hoeing. 3. Lower down the scale, but not at the bottom, is the practice of planting in bare or plowed ground, and leaving it unoccupied, taking no further care of either land or trees. 4. A sowed grain crop is still worse, but hardly worst of all, for the previous plowing of the ground has been enough to produce a slightly favorable effect. 5. Last of all, lowest in the scale, is planting in a meadow, where there is nothing whatever that is favorable; the roots below rob, the growth above smothers, the turf around imprisons, and the tree languishes and in most instances dies.

It would be worth thousands of dollars,—yes, hundreds of thousands, to the country at large, if the State Agricultural Society, or private individuals, could perform a few sets of experiments of the easiest and simplest kinds, and have them widely reported, showing the above-named results in their different grades. Let five rows of young peach trees be set out and treated as described, viz: One row in clean, constantly mellowed earth; the next in a crop of potatoes; the third in a bare uncultivated field; the fourth in wheat, and the fifth in a clover meadow. We shall venture to predict the average results; viz: The shoots on the first row will grow in a season three feet long; on the second one and a half feet; on the third six inches; on the fourth half an inch to an inch on such as live; and on the last none at all, three-fourths dying before any growth is made. We hope the trial will be made, and the results demonstrated and published.

A Productive Tree.

A. Loomis, of Byron, Genesee county, N. Y., says that the past season, a tree of the Baldwin apple, standing on the ground of his brother, produced last year twelve barrels (besides four or five bushels of windfalls,) that sold for $2.25 per barrel. The year's product of this tree was consequently *twenty-seven Dollars*—quite equal to an acre of wheat in nett profit.

Worms in Horses.

I think "C. M." will have no trouble with wormy horses, if he will put a strong handful of sifted ashes on their feed three or four times a week, and once in two or three weeks scald some wheat bran—a few hours—with a handful of ashes for each horse. I should prefer each mess by itself. A Subscriber.

The Housewife.

Washing Clothes.

Messrs. Editors--Please give a full statement of the latest and best chemical process of washing clothes by hand; also the best washing machine, and you will oblige many readers by so doing. William Temple. *Greene Co., Tenn.*

So far as our limited knowledge extends, the best *chemical* process in washing, is the application of that peculiar compound of oil and potash commonly known as *soap*. There are modes of applying potash, soda, &c., to lessen the labor, but nearly all of these have been found to have some drawbacks, and have been discontinued after a time by those who adopted them and warmly commended them at first. There may be however, some which have stood the test of thorough trial, and if so, we should esteem it a favor if some one who has been thus successful, would give our correspondent and readers the desired information.

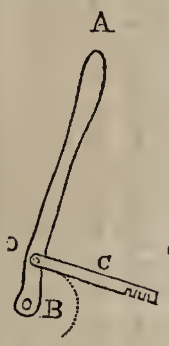


Fig. 2.

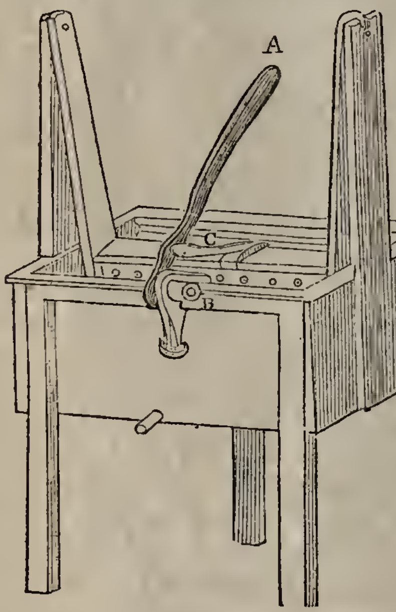


Fig. 1.

The best washing machine we knowof, is one we have used for ten years and more, and is exhibited in the accompanying figure. It is worked by an alternating motion of the handle or lever A, which turns on the central hinge or joint B, pressing the perforated board which swings like a pendulum within the trough by means of the connecting bar C, against the grooved side of the trough beyond. Fig. 1, is the whole machine; Fig. 2, the handle and bar C, detached, showing the notched end of the bar, for regulating the space for the clothes. The handle and bar are cast iron. The perforated board and its suspending frame, are easily lifted out whenever necessary.

The box or trough must be made very strong, for the pressure exerted against the side by means of the lever, is enormous. At the first motion of the handle, the pressure is only five or six times as great as the strength of the person working it, but as it approaches a horizontal position, it becomes greater and greater, precisely like that of the *lever printing press.* A little care is required in regulating the quantity of clothes, so as to admit the lever being brought down to a level position as the finishing stroke is given.

So great is the force of pressure exerted upon the clothes, by the last or finishing motion of the lever, that a boy ten years old can work the machine with ease, and it does not require more than one third the labor needed in washing with the old-fashioned *wash-board*, and does not wear or chafe the clothes in the least degree. A great advantage found in working it, is that one's weight is *thrown upon* the lever, and it accordingly possesses that particular superiority of the application of strength found in rowing a boat, the only difference being in pushing instead of pulling.

Machines on this principle are made and sold in various parts of the country. Some are made too complex, being encumbered by a wheel and needless appendages. The simpler the better. We used one about ten years, without fifty cents of repairs. The cost need not exceed five or six dollars.

To Make Pure Wine of Apples.

Being aware that much wine sold for genuine champaigne was manufactured from cider, we informed a correspondent a short time since of this fact in answer to his inquiry. The following letter was elicited by the reading of the answer referred to:

Messrs. Edtors—I am well aware that imitation wines are now extensively made in the State of New-Jersey from the juice of the apple, and more from the Harrison apple than from any other variety, and the most of it is made at Newark. Those *knowing* ones are correct with regard to its being a mixture of poisonous drugs not fit for the human stomach.

Having been in the horticultural business for over forty years I have had an eye single to those spurious wines from the juice of the apple.

It is gratifying to me to think that when you come to taste and test my wine—which I send you accompanying this letter—you will find a wine, a pure article, free from all drugs, and not an imitation. The sample I send you is eighteen months old, and made after the following process:

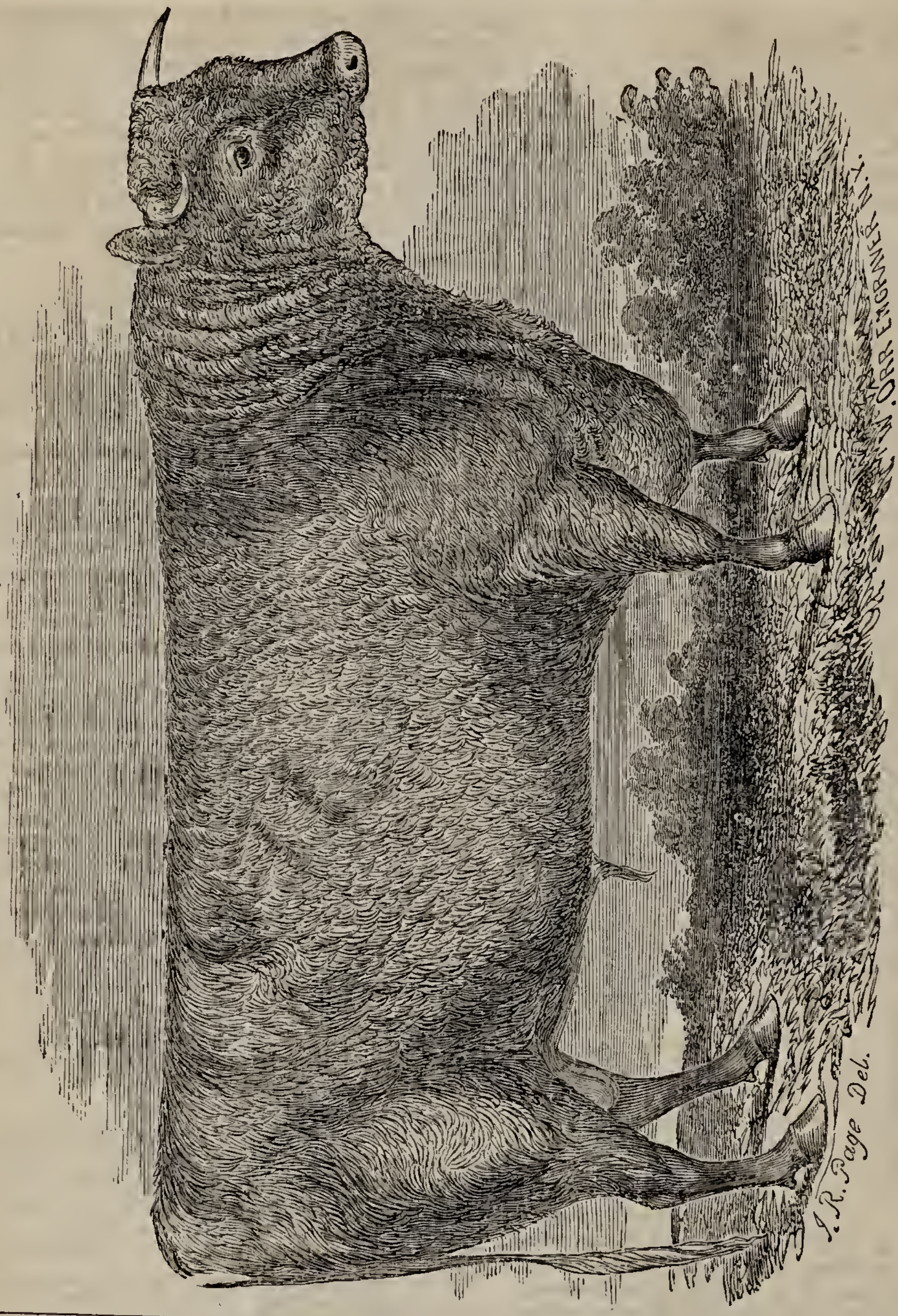
Take pure cider made from sound ripe apples as it runs from the press. Put 60 pounds of common brown sugar into 15 gallons of the cider and let it dissolve, then put the mixture into a clean barrel, and fill the barrel up to within two gallons of being full with clean cider; put the cask in a cool place, leaving the bung out for 48 hours; then put in the bung, with a small vent, until fermentation wholly ceases, and bung up tight, and in one year the wine will be fit for use. This wine requires no racking. the longer it stands upon the lees the better. Sterne Bronson. *Elkhart, Ind., April*, 1856.

It will be observed that our correspondent has, for the benefit of all concerned, described the method of making pure cider wine, and it is for us to say something regarding the sample he sent us. It is a good cider wine, the best we ever tasted. If it had any fault, it consisted in being a very little too sweet. This can be remedied by using less sugar than the above named amount. A barrel of cider contains 31 gallons. Wine from currants can be made in the same manner exactly.—*Scientific American.*

Currants for Wine Making.

The red currant (or red Dutch) for wine making, gives a higher flavor than the white, and is considered a better producer. One acre of currant bushes, set 4 feet apart, would in due time produce 25 bushels of fruit, and might be made to grow 50 bushels, that depending on the soil and the manner of cultivation. Three gallons may be obtained from a bushel of good ripe fruit. Make the wine in the same manner that you would a barrel of good sweet cider, with the addition of from 3 to 4 pounds sugar to the gallon, fermenting off the pomace until it is entirely clear, after which it should be racked off into tight barrels and there remain any desirable time to become ripe and firm. As to the price of the article in market, the deponent saith not.—*Rural New-Yorker.*

Fowler & Wells' Hand Mill.—An Ohio correspondent, in answer to the inquiry of W. F. B., informs us that he bought one of these mills, and that he was greatly disappointed in its work. Indeed he condemns it in toto, and says it is unfit for the purpose intended.


J. R. Page Del.
ORR ENGRAVER N.Y.

Devon Bull "Comet," (162.

Imported in 1851. For pedigree, see Davy's Herd Book, page 144, Vol. 2. Winner of the first prize for imported Devon Bulls at the Connecticut State Fair in 1855—the property of Linsley Brothers, West Meriden, Conn.

Feeding Ewes and Lambs.

Friend Tucker—In looking over the last year of the Country Gentleman, which I have just got bound in one vol., I find in the No. for April 5th, an inquiry as to the best food for ewes and lambs during winter, the inquirer, Wm. E. Wheeler, supposing he lost several by feeding on potatoes, &c.

As I have had some experience for the last two winters with ewes, and find my results to differ so widely from those obtained by him, I am inclined to believe some other cause than the one mentioned will have to be sought in order to account for our different success.

In the winter of 1855, I kept 12 ewes, one of which died in the early part of the winter before dropping her lamb; the other eleven raised 18 fine lambs, not one having died. The past winter I had 28 ewes, which now have 37 lambs, viz. 19 of them one each, and 9 two each. One ewe lost a twin lamb during the severe cold.

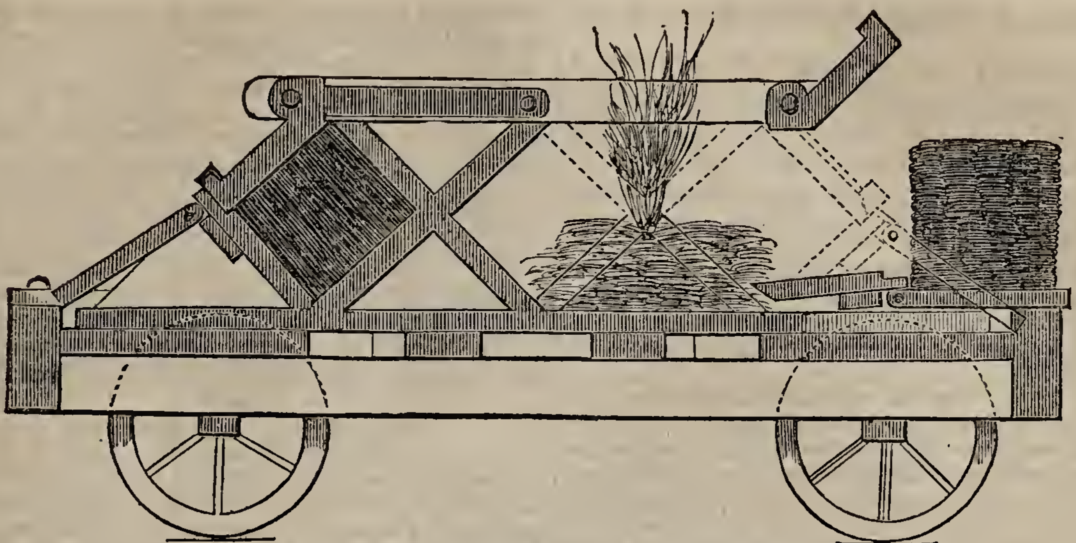
This winter they began to drop their lambs in the first month, and about half the lambs are now ready for the butcher.

Their food was as much clover hay as they would eat, without allowing them to waste any: and a feed of corn and oats mixed, in the evening, till they began to lamb, when a feed of chopped potatoes, with a little meal, made of equal parts of corn and oats, was given in the morning. Fresh water twice a day.

I gave them but little salt during the winter, as they did not seem to desire it, but now when on grass, they inform me every two or three days that there is still a want unsatisfied. The lambs eating it with even more avidity than the old sheep.

They have been kept confined in a pen entirely under cover and sheltered from the wind nearly the whole winter in consequence of the severity of the weather, and are yet put up at night, and fed with as much corn and oats as they will eat.

I have been thus minute in stating the treatment of my sheep in order that others may escape the inconvenience of looking for an evil in the wrong direction.
D. Evans. *Willistown, Chester Co., Penn.*, 5 *mo.* 9.



Patent Portable Hay and Cotton Press.

Invented by P. Manny *of Waddam's Grove, Ill., and patented April* 17, 1855.

Being a horizontal vibrating lever press, constructed on wheels, is readily drawn from place to place, and worked with great facility—the bale being hooped at one end, while the press is being filled at the other, and vice versa, pressing a bale at each vibration of the levers, and, as is apparent, capable of doing a greater amount of work, and designed to fully meet the wants of the public.

Notes from New-Hampshire.

The Rape Plant.

In the Co. Gent. of 3d Jan., is published some account of my experiments in the cultivation of the rape plant. I am doubtful about the fall-sown plants surviving our winters. If they will not, they cannot be profitably grown here for the manufacture of oil from the seed. But I think the plant is worthy of extensive cultivation as green forage for cows during the usually dry autumns we experience. I shall sow the seed this year at different times, say in May, June and August.

I placed in my cellar last autumn, some half a dozen of the stumps from which the tops had been cut. They are now in a flourishing condition, and probably will produce abundance of seed. But I think I ought to have saved the perfect, or uncut plants for seed, rather than the stumps.

Winter Wheat in New Hampshire.

"Man and boy" I have lived—well, its no matter how long, but will say about fifty years, more or less, and I never saw a field of winter wheat till the summer of 1853. The previous summer (1852,) a son of one of our farmers was in Western New-York. On his return, he brought in his valise, thirteen quarts of White Flint winter wheat. This was sown on one third of an acre of "pine plain land." The land was in corn in 1851—oats 1852—in consequence of severe drouth, a light crop. Some weeks after the oats were harvested the land was covered with a dense growth of Roman wormwood and barn grass. About the 10th of Sept. there was applied to one third of an acre seven loads of compost manure; the compost, weeds and stubble, were all turned under by the use of a good plow. The 13 quarts of seed sown, &c.; producing the next season sixteen bushels of prime wheat—at the rate of 48 bushels per acre. The crop was readily disposed of at $3 per bushel for seed—the yield of which, the next year was generally satisfactory, although somewhat lessened by the early and severe drouth of that season, A much greater amount was sown in the fall of 1854. The yield was good. The earliness of ripening, put the grain a-head of the weevils and the straw beyond the reach of rust, that is so injurious to the late ripening spring wheat.

Last autumn there was a still larger breadth of land sown with wheat. It comes out this spring bright, and now is looking splendidly, and I think it will compare favorably with the wheat of the west or any other wheat-growing section of the country. Six years ago, our farmers would as soon thought of attempting to grow the lemon and orange, as winter wheat.

Different Varieties of Foreign Wheat from Pat. Office.

In the Co. Gent. of 20th Dec. I gave a short sketch of several varieties of winter wheat received from Patent Office. The wheat was sown in drills, 18 inches distant, 11 rods long; land sloping to the east; rather poor, light, gravelly soil, dressed with guano, at the time of sowing the seed, about the 20th of Sept., (at least three weeks too late) I had several papers of the Algerian Flint wheat from the province of Oran. This variety has a remarkably large berry, rather dark-colored, and weighing 70 lbs. to a bushel. I sowed three drills, making 33 rods in length. I think this variety appeared the most promising last fall, but nearly the whole of it is winter-killed, though recently a few dozen plants appear to have some vitality in them. The drill next north of the Algerian, I think,* is the early Noè wheat from France. This is the best looking kind in the lot, although two other varieties appear nearly as well. Two other sorts have about half the plants destroyed.

If I am correct in regard to the Early Noé, I think it must prove the best variety of the lot. Says the Patent Office Report—"This variety has the property of ripening some days before the common sorts; if it succeeds in our climate in this respect, a great point will be obtained. A single week thus gained in ripening, would often secure the crop from injury by the fly or rust, aside from the advantages to be acquired from an early market." I may further advise you respecting these several kinds of wheat after harvest.

French Prunes.

About one year ago, I received prune scions from the Patent Office. They were in bad condition when received; had quite a number of grafts set; only two lived, one of which grew five feet, the other two feet; winter-killed about half the length of each. They are now bursting their buds, and as they have survived the past trying winter, we may hope they will yet do well, even here in the Granite State. L. Bartlett.

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* By some means I have mislaid the memorandum, made at the time of sowing, but shall probably come across it soon.

Fish-Manure—Composition and Value of, &c.

It is generally well-known that all dead animal matter contains manurial elements of considerable value. Both science and practical trials have testified to this fact. Nevertheless instances are to be found in cases without number, in which single carcasses or the refuse thereof, and in which still more, the blood and refuse of slaughter-houses and of places for cleaning and curing of fish, have been wholly unappropriated or nearly so, and left to taint the atmosphere in their neighborhood.

Chemistry and capital united, will, probably, soon put an end to this waste of manurial matter, and abate this nuisance of a polluted atmosphere. And while the chemist obtains an honest reward for his skill, and the capitalist a fair percentage for his investments, the agriculturist will also be benefited by an increased supply of the elements of fertility, and at rates, too, more likely to be reasonable as the supply approaches more nearly to the demand. All of these three classes have, for some time past, had their attention directed to fish and fish-offal as a source whence a valuable fertilizer might be obtained. Various plans have been proposed for the reduction of such matter to a concentrated and commercial form, most of which have been found either impracticable or have proved too expensive.

Whether or not the process adopted by Mr. HALLIDAY, at the manufactory near Providence, R I., is free from these objections, and whether or not it can supply ammonia, phosphates and other fertilizing elements at as low a price as we can obtain them in other forms,—these questions are not yet determined with any degree of certainty. From the most recent advices we should infer that only one of the several plans which have been proposed and tried in Great Britain for preparing a concentrated manure from fish or fish-offal has as yet proved successful. Dr. ANDERSON, Chemist to the Highland and Ag. Society of Scotland, states that he has recently analysed a sample made by a patent process which is said to be simple and inexpensive; and should the manufacture yield, says Dr. A., "on the large scale a material of uniform quality, and equal to that I have examined, it will undoubtedly prove a very important addition to the list of ammoniacal manures." The sample examined by Dr. A. was in the form of a yellowish powder, in grains about the size of fine corn-meal, remarkably uniform in appearance, very dry, and almost devoid of smell. From the analysis made of it, Dr. A. says that there can be no doubt that, if fish-manure of an equally good qaulity can be produced, a large demand for it will soon be created. Its composition is :

Water,	8.00
Fatty matters,	7.20
Nitrogenous organic do.,	71.40
Phosphate of lime,	8.70
Alkaline Salts,	3.80
Silica,	0.84
	100.00
Nitrogen,	11.25
Equal to ammonia,	13.68
Phosphoric acid in the alkaline salts equal to 14.1 phosphate of lime,	0.65

The amounts of ammonia and phosphate of lime in this fish-manure, as shown in the above analysis, prove it to be a very valuable one. The following remarks on its money value will prove interesting to many of our readers. The currency used may be easily converted into U. S. currency, though we have given an approximation sufficient for all practical purposes.

The price of this manure, says Dr ANDERSON, "may be estimated very readily, according to the mode employed for Peruvian guano, by taking the commercial value of each of its important manurial constituents as derived from other sources. The values usually adopted by chemists have been at the rate of $\frac{3}{4}$d. ($1\frac{1}{2}$ ct.) per lb. for phosphates, and 6d. (12 cts.) per lb. for ammonia; or expressed in tons, £6 ($30) for the former, and £56 ($280) for the latter. (The English ton is 2240 lbs.) Upon this plan, and taking all the phosphates under one category, we estimate the value of 100 tons of the fish-manure as follows :

13.68 of ammonia at £56,	£766
10.11 of phosphate of lime at £6,	60
Value of 100 tons,	£826

or almost exactly £8 5s. ($41.25) per ton; and this will probably be its average value." By another estimate, taking the price of sulphate of ammonia as the basis, the value is $9 15s. ($48.75) per ton.

Tile-Making and Ditching.

I wish to obtain information as to the best tile machine in use, and where it is to be obtained, cost, and anything of interest relating thereto, which you may be able to give me. Our lands need draining, and freight and breakage from Albany is an effectual preventive to our people obtaining them from there. We have material in abundance—clay, labor and fuel. Can they be made profitably at Albany prices? and for how large a job at draining would it pay to obtain a ditch-digger, such as you describe in your "Annual Register?" I feel personally somewhat interested in the subject, and as Secretary of our State Board of Agriculture, am very anxious to do something to introduce thorough drainage where it is so much needed. S. L. GOODALE. *Saco, Maine, May* 26.

From information received, we have no doubt the present prices of tile afford a handsome profit, provided ready sales may be obtained. An extensive demand would no doubt reduce the price materially, as they are furnished much cheaper in England than here. Machines for making tile are manufactured by PRATT & BROTHERS, Canandaigua, N. Y., who will promptly furnish any desired information as to price, a point on which we are not informed.

If the land at Saco is tolerably free from stone, the ditch digger would doubtless prove a great saving of labor, as we have seen it cut with two horses and a man, at the rate of 75 rods per day, two and a half feet deep, in a hard clay soil and subsoil, where but few stones existed. The price of Pratt's Ditching Machine is $150; and from the data here given, our correspondent can readily estimate the amount of work required to repay its purchase.

Cast-Iron Water Troughs.

MESSRS. EDITORS—I saw in the June no. of the Cultivator, an inquiry from A. B., a subscriber of Charlotte, Vt., for the best watering trough. I can inform your correspondent that I have had much experience in watering troughs of all kinds, made of pine logs, pine plank, rum hogsheads, and oil hogsheads, and I could find nothing but that would in a few years rot and leak, flowing with ice all around them in consequence thereof. The hoops will soon rot from an oil hogshead, and then your trough will leak. I finally bought, some twenty years ago, from the ashery given up in this place, three potash kettles, very cheap, and have used them ever since, and they are as good now as the day I bought them. One of them is by the roadside, with a fine large stream of aqueduct water, pure and cold, with a tin dipper hung to the post, to quench the thirst of the weary traveler. These have done so well, I three years ago wished for more troughs to supply all my cattle and sheep yards. I went to

Rutland, Vt., and Mr. Bowman, the agent of the Iron Foundry, cast me four oblong troughs which prove first rate—no leak, no trouble. I have seven iron troughs which can be seen by your correspondent if he will call. Water comes in by a lead pipe through the bottom of some, and over the sides of others—the refuse carried off the same way.

For a drain I have for fifteen years or more had one which has not been repaired, built by laying flat stone in the bottom of a ditch two feet wide, long side stone, covered with large flat stone, and first with inverted sod or straw to keep the dirt from filling the space, and then covered with dirt.

I would add that Mr. Bowman of Rutland, has cast me an iron sink for a farmer's back kitchen, and which is a valuable article. L. Wilcox. *Orwell, Vt.*

To Prevent Foxes Killing Lambs.

Messrs. Editors—In answer to the inquiry made through the "C. G." a few weeks ago relative to protecting lambs from the depredation of foxes, I received the following from a friend in an adjoining town. You will perceive that I am at "liberty to make such use of it as I think proper," and as it differs so materially from the recommendation of "A Wool Grower," published in the last No. of the Co. Gent., I have concluded to send it to you for publication.

I would say that I have tried friend Eastman's remedy, and believe it has proved, thus far, perfectly effectual, while my nearest neighbor, who neglected for a few days to make use of the remedy, has had a portion of his lambs taken by the fox, and that too while within a few rods of his house. D. G. Williams. *East Dorset, Vt.*

Dear Sir—In the Albany Cultivator for May, 1856, I find an inquiry headed 'Foxes killing Lambs," from you. After stating the number of lambs destroyed by foxes, you ask, is there any remedy to prevent, short of destruction? I answer yes, and for the benefit of yourself and neighbors, I send you the remedy, hoping it may prove as efficacious with you as it has with me:

My practice has been to have my lambs come before I turned out to grass or at least four-fifths of them. On the day I turn out, I gather the lambs all into an inclosure. I then take a red woolen flannel string, say three-quarters of an inch wide, saturate it with sulphur and grease, give it a slack twist, and tie it around the lambs' neck. Thus I serve the whole, and turn them out until shearing, when I take the strings all off. By this simple remedy I have saved hundreds of dollars, and have never lost a lamb when I have practiced it. Prepare your sulphur and grease (lard is the best) beforehand, by melting and stirring together, and your strings from old worn out flannel.

As you may think me a little curious in recommending a red string, I will give my reasons for it. First, because it makes the flock look so uniform and pretty. 2d, because the fox does not pounce upon his prey like a hawk or eagle, but approaches, retreats, reapproaches, re-retreats, crouches, gambols and frolics about until his victim is off his guard, while he himself grows more emboldened, and at last leaps over his victim, and endeavors to catch the scent; the color of the string now attracts his eye; he examines, and loathes the smell, and gives up the lamb as a bad egg, and retires in despair, not casting one longing lingering look behind.

Before I close I will beg of you to spare the foxes, for I have considered them for many years a blessing instead of a curse to the farmer. A few years ago they were nearly exterminated from this section by the trappers, and the result was the increase of other vermin four-fold, especially woodchucks and skunks, scarcely a rod of our meadows but what showed traces of their depredations. Therefore let me say again, spare the Foxes. Dorson Eastman. *East Rupert, Vt.*

On Training Colts.

A correspondent, whose favor is published at length in our weekly paper, after describing the manner in which he spoilt a "noble gelding," by his efforts to break him, by "machinery and according to rule," thus gives his later and wiser method:

And now here goes the other side. I have raised and broke some half a dozen colts. Let me remark, I am not a horse dealer (having never yet traded horses in my life,) or a horse breeder, but a dairyman and wool-grower, and have since the first experiment invariably followed the course I am now about to describe,—and which has proved entirely successful. I have never taken much pains to gentle a colt while it follows the dam—that is for the first 4 months; and all attempts at catching it by my workmen are strictly forbidden. If it will come near you, of course treat it with gentleness. The reason I do not allow it to be caught is this—I do not approve of meddling with any young animal till you have time to do it effectually, and this is not the case on my farm at the period before weaning. At the time of weaning, the colt is shut up in a roomy strong stable, and kept alone, with the best of treatment until its wild cravings for the dam are exhausted; a good halter of leather is placed on its head; and as a man is sufficiently strong to hold it, and as a short time answers to learn the lesson, he is quickly taught. Sometimes, if very stubborn it may be well to tie him to a post and leave him alone for half a day or even longer, when at the return of his groom he will manifest an absolute pleasure, and suffer himself to be led at will. As winter approaches, it is provided with a warm dry stall, not on the naked floor by any means, where he is tied by the halter, and led to and from the brook, and as much more as you please, and allowed to run at large in fine weather, and fed with a small daily allowance of oats and plenty of good hay during the first winter. In spring he is turned to pasture, and the second winter the range of the shed and coarse hay, straw, or the litter of the sheep-rack, makes up his fare, and until the winter before the colt is 3 years old, or as much older as you please; but when we are ready to break a colt, we place the halter on his head, which he has not, and never will forget, and then place him in a strong harness along with an old, strong, steady and true horse, and drive on the road far enough to weary it, say six or eight miles, or go on about your work on the farm. The loads must in all cases be such as the old horse can move with ease, and the colt along with it if necessary, and if you back, the old horse must do the backing also. I have found in all the colts I broken, that they will learn the bit and rein as soon as the collar and breach.

I have broken two of a race that are said to be almost universally vicious, and I have never used a bitting harness at all save in the first instance, and never a whip but once since, and that in a case of obstinate stubbornness in a young colt of eight months, which could not be induced to move at all in the halter; and in this case a lesson of a short hour proved sufficient to remove objections to such a degree that it followed me readily into the kitchen, to the astonishment of all within. This was one of the vicious ones spoken of. I am now using on the farm as the principal team, a pair of colts not yet four years old; they are perfectly reliable, no whip being needed, and a careless observer would on seeing them work, never suspect they were so young. The only fear I have in the matter is that we shall work them too hard. One of these is of the race of intractables, and until it was tied in the stall and fed at the manger steadily for a long time, would on no account willingly suffer its nose to be handled, which made it unpleasant as it was with difficulty it could be haltered in the field. Kind treatment and patience have conquered, and its disposition is so far modified as to be almost if not quite affectionate. How do you like this picture?

This is my experience in training colts. Let others do as they may, as for myself I am satisfied with both sides. Of the first, I had quite enough, and the memory of that transaction is attended with painful feelings of remorse. Of the last, in all the colts that have passed through my hands, not one has yet come to maturity, but has proved itself first rate. I know several that have been trained by jockeys, and not one of these but must learn the uses of the harness ere they are fit for anything but the lighter pleasure carriages or sleighs. E. B. H. *Berlin, Centre, N. Y.*

We "like the above," and shall be pleased to receive the other articles alluded to.

Blood as a Fertilzer.

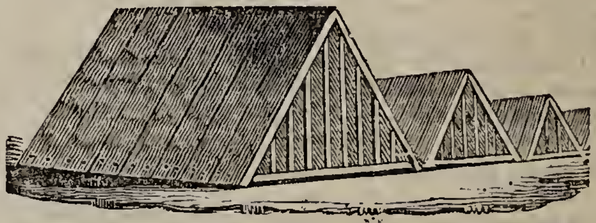
A company has recently been incorporated in England for tho manufacture of what is called *The Patent Nitro-Phosphate or Blood Manure.* One good effect of the establishment of such a company may be this—that the attention of agriculturists shall be thereby more generally directed to the value of blood as a fertilizer. How seldom is any attempt made to save blood when animals are slaughtered either on the farmer's premises, or at slaughter-houses in villages. In the larger villages and cities the blood is very generally collected and sold to refiners of sugar and other classes of manufacturers. That blood is worth some little expenditure of care to save it we may infer from what chemists inform us as to its composition, the amount of nitrogen in fresh blood being generally set down as equal to 3 per cent. of ammonia, making it worth for this constituent alone about four cents per gallon, or $8.00 per ton of 2000 lbs. The value of blood by this estimate is about seven times as great as that of good farm-yard manure. Of course, if one hundred pounds or pints of blood were received upon and absorbed by six hundred pounds of well-dried peaty or mucky matter, the resultant mixture would be equal to 700 lbs., or over one-third of a ton, of good farm-yard manure. Either in the fresh state or absorbed to saturation in muck, blood might be advantageously used in gardens and in fields in the neighborhood of villages.

Butter Making in Winter.

Messrs. Tucker & Son—I see in the Cultivator an inquiry of "Why will not the butter come?" And as the answer you quoted from a back volume, is not satisfactory to me, for it does not produce the best possible article, I will give my experience of the best way I have found out to make butter in the winter. In the first place I want all the milk utensils perfectly sweet and clean, and the milk clean and free from dirt. Set the milk in a warm room, in pans; skim the milk as soon as it needs to be, and put the cream in a crock in a warm place to sour. The day before it is churned, heat up to 100°, or as warm as it can be without starting the oil, and set it back in its place till the next day, and then warm it up to 62° and churn. The butter will come in the course of an hour. I think to have it come in half an hour makes the best and the most butter. Work it just enough to get the buttermilk all out, but am very careful to not have the grain of the butter broken, for if the little golden globules are broken it makes the butter taste greasy. Use all the salt (after the milk is out) the butter will dissolve, which is one ounce to the lb. of the fine ground salt, (pure and good.) I think the strippings the Old Subscriber put in with his cream, was no help to make the butter come. Warming the cream was an experiment that we tried, and found that it improved the butter very much in taste and in color. I never use any coloring stuff in my butter or cheese. I think the milk and cream, when properly manufactured, make the best color. I E. *St. Lawrence Co., N. Y.*

How to Make Hen Coops.

I would be much obliged if you, or one of your correspondents, would inform me through the columns of the Country Gentleman, as to the best method of constructing a hen-coop for raising young chickens. By so doing you will much oblige. R. K. *Easton, Pa.*



The coop represented above, was described and recommended by C. N. Bement, author of the "Poulterer's Companion," in the Cultivator, many years ago. We have found it to answer a good purpose.

It is made by nailing short pieces of boards together, in such a way as to form two legs of a triangle, tho ground answering for the other side. These coops should be at least two feet in height, with one end boarded up tight, and the other secured by nailing strips of boards, or laths, in the form of a grate, leaving sufficient space between them for the free passage of the chicks, without affording liberty to the hen. In front, there should be a broad piece of board, as long as the coop is wide, on which to feed the chickens and hen. This board may be secured to the coop with leather or other hinges, so as to admit of being raised up and closing the coop, towards evening, which will not only answer the purpose of guarding the young brood against rats and other enemies during the night, but will prevent them from wandering about the next morning on the dew and wet grass before it is dry.

To Prevent Cows from Kicking.

Messrs. Editors—One of the trials or vexations that dairymen *have* to be subject to, is kicking cows. From the removal of calves from their mothers, chapped teats, and bad dispositions, it may be safe to say that no dairyman gets through the milking season without encountering this annoyance. Any method therefore that will save the poor cows the cruel knockings, kickings, and hard names, that they frequently get on such occasions, or even the more moderate system of a "single blow, with time for reflection," as recommended in the "Cultivator," a few years ago, is at least worthy of trial.

Cattle are, in some respects, like some human beings; they will do more to gratify a *bad* disposition, than to comply with wholesome discipline; hence it will be found very difficult to find a remedy that will apply equally well in all cases. The following method will perhaps approach as near perfection in that respect as any that can well be hit upon. It has at least humanity to recommend it. Cause the cow to stand upon *three legs* during the operation of milking. This may be done by simply noosing a small cord around the fore foot, and bringing it up to the body, and wrappping the cord twice around the leg above the upper joint, and tucking the ond under, or which will do about equally well, fasten the chain or tie rope to the manger or stancheon about two feet from the floor, and then hang the fore leg across that.

The next best method perhaps is the old English "cow tye," which is nothing more than a soft rope about 2 inches long, with a noose at one end and a wooden tie in the othor. Wrap this around the slender part of the hind legs and cross it once or twice between, so as to make it lap tight, and it will generally, in a short time, make a cure. R.

United States Agricultural Society.

The Fourth Annual Exhibition of the United States Agricultural Society, will be held at Powelton, (Philadelphia,) on Tuesday, Wednesday, Thursday, Friday and Saturday, October 7th, 8th, 9th, 10th and 11th.

The First Exhibition of the Society, held at Springfield, Mass., in October, 1853, was devoted exclusively to an examination of Horses;—at Springfield, Ohio, 1854, Cattle alone, were exhibited; at Boston, 1855; all departments of Farm Stock,—Cattle, Horses, Sheep and Swine, were shown.

The Society, encouraged by past success, and by the approbation of the Agricultural community, now propose to offer Premiums, not only for Domestic Animals, but also for Poultry, and the products of the Fruit Garden, the Grain Field, and the Vineyard, and for Agricultural Implements and Machinery.

Premiums from Twenty-Five to Two Hundred Dollars, amounting in the aggregate to over Twelve Thousand Dollars, will be offered for the various classes of Domestic Animals, Fruits, American Wines, Vegetables, Grains, and Agricultural Implements and Machinery.

A local Committee of Forty Citizens of Philadelphia, representing the various branches of industry, has already been appointed to co-operate with the officers of the Society, in perfecting arrangements for the Exhibition; and Fifteen Thousand Dollars have been guaranteed to meet expenses. This material aid, coupled with the excellence of the selected location, and the large amount of Premiums offered, induces the expectation that the Exhibition of 1856, will be superior to any of its predecessors.

Favorable arrangements for the transportation of Stock and other articles, will be made with the various Railroads.

The List of Entries, the Awards of Premiums, and the Proceedings, will be published in the Journal of the Society for 1856.

The Premium List, with the Regulations and Programme of the Exhibition, will be furnished on application to Mr. JOHN MCGOWAN, Assistant Secretary of the United States Agricultural Society, 160 Chestnut Street, (Rooms of the Philadelphia Agricultural Society,) or by addressing the Secretary at Boston.

MARSHALL P. WILDER, *President*.
WILLIAM S. KING, *Secretary*.

Destruction of Trees by Mice.

The unparalleled destruction of fruit trees by mice the past winter, has not, we think, received the attention through the public journals, that a calamity of such magnitude demands. With the hope of drawing more attention to the subject, we publish the following extract of a private letter, written some weeks since, by a gentleman who has given large attention to the subject of market orcharding, and who has large plantations of fruit trees. We hope it may invite such examination as may lead to the discovery of some remedy.

MY DEAR SIR—Before seeing the Co. Gent. of this week, I supposed *myself* the only *ruined* man, *orchard-wise*. But on page 256 of Co. Gent., in an article I suppose written by you, I see that great destruction is suffered by others, as well. Full one-half of my fine young orchards have been completely destroyed by the mice—grass and plowed ground alike. Trees 6 inches in diameter, have suffered as badly as smaller ones. My pear orchard of near 1000 trees, is literally riddled, and I shall plant *no more of them*. *Other* casualties were bad enough to try all the patience and perseverance I had; but this *mouse* destruction has done me up. I had 2,500 fine young apple trees in nursery, which I calculated to plant out in 30 acres more of ground this spring. These are all gone I don't believe I have fifty trees left out of the whole number, and I never saw finer ones than 1500 of them were—all the *best* kinds of *worked* apple.

What to do I don't know. To replant, and be served in the same way again, I can't think of. Here are eight years of labor, and solicitude, and my *whole future* years of expectation cut off at one fell swoop, besides the investment of capital in the purchase of the trees, and the cost of planting and tending them.

How badly off my neighbors are I don't yet know, but I hear that one of my neighbors has lost the most of his fine young peach and pear orchards. The sum of my losses I cannot state—but the dollars may be estimated by thousands! In fact I feel sick—disheartened from further trial in the fruit line. I could give a fearful bill of particulars, if I had time.

I know of no remedy that will save my trees. All the nostrums of the books and papers are worthless. I have tried them in a small way heretofore, but they are imperfect, and of doubtful efficacy. Many of my trees are girdled from root to branch where snow drifts covered them, and many are cut out at the root itself, where the mice burrowed like woodchucks Nearly all my orchards had got into bearing, and had been planted from four to ten years.

I see also, on going into my timber lots, that the mice have made sad havoc with the young forest trees. All kinds alike appear to have been cut, from root to branch, where the snow piled around them. I never heard of such wholesale destruction before.

How so many mice came, is the wonder. The fields were full of them last fall. The season was wet—a heavy growth of grass followed, which gave them shelter, and they increased like grasshoppers. Even now every loose piece of turf and old sod is filled with them Plowed fields appear to be as bad as the grass grounds. So that all precaution, as heretofore considered effective, has proved useless.

This calamity will prove a fertile text for deeper investigation than any previous experience that our pomologists have had, and I hope our nurserymen and others interested will canvass the subject through our public journals.

Disease in Poultry.

I have lost several valuable fowls lately, with a disease like the gapes in chickens. Some of them live a fortnight after being attacked, and some die in a few days. There seems to be stoppage in the breathing apparatus precisely like gapes in chickens. Do you know of any remedy? OTSEGO.

The inquiry above would have been noticed earlier had it not been mislaid. The description of the disease affecting our correspondent's poultry is not full enough to enable us to judge with certainty as to the treatment. Some of the symptoms are like the roup, while others are more like inflammation of the lungs. In either case, we should recommend that the diseased bird be immediately removed from the flock to a dry, warm, and well ventilated place. If the bird was ours we should give a tea-spoonful of castor-oil, or one and a half of flour of sulphur; then leave it to fast for one or two days; then feed sparingly for a few days of mashed boiled potatoes or of scalded oatmeal. If the bird did not soon amend, unless it was very valuable, we should kill it at once.

An Egg within an Egg.

A subscriber informs us that the abnormal egg mentioned in a late no. of this paper, is no very unusual thing. He says he has seen two within a few years. One was very large, and laid by a white Shanghai hen; the other was less than an ordinary egg in size, and laid by a Creole. Both of the inner eggs were perfect, but between the two shells only the white of an egg was found in either case.

Inquiries and Answers.

Cedar Birds.—H. H. B. inquires in the last no. of the Country Gentleman, the best way to repel those "delicate looking rascals," the cedar birds, and states that shooting does not answer. He will find this remedy to succeed, if only applied perseveringly at the outset. Begin early in the morning and continue two or three hours, when they will probably leave for the day. They will return again probably, when the same process is to be repeated. They will not stand many assaults of the kind. We have generally found that an hour or two for a few mornings will drive them off for a long time—sometimes for a week, and sometimes for the entire season. At any event, the quickest way to get rid of them, is to keep up the attack, till some decided result is produced. Sometimes the destruction of a very few will frighten off hundreds.

Heaves.—A correspondent inquires the best feed for heavey horses? I had one two years ago which was very bad. I commenced feeding the first of the winter, cut hay, wet and covered or mixed with what grain I thought he needed—a quantity of cob meal, or meal ground from corn in the cob, and he is now as well to appearance as ever. L. Wilcox. *Orwell, Vt.*

House Leek or Liveforever.—I wish to inquire the best method of destroying the house leek, by some called liveforever. A. D. J. [Spade the turf containing it, four to six inches deep, and throw the whole mass, tops, roots and all into the hog-pen. If any appears the next year treat it in the same way. If you have more ground covered by it than you can treat in this way, follow the example of a former correspondent of this paper, who says—"I had about three-quarters of an acre completely covered with it. In the autumn of 1852, I commenced by plowing as shallow as possible, or not more than 4 inches deep, laying the furrow as flat as possible so that it could be easily removed. I then carted and packed the turf in heaps about 6 feet wide, 4 feet high, and as long as was convenient, say about 4 rods, handling it carefully so as not to scatter the small fibres. I used salt and lime freely during the packing operation. In this way I have completely removed it from the soil, and I find on opening the heaps that the inside is completely destroyed, and suitable for top-dressing or mixing again with the soil."

How to Destroy Quack Grass.—How to destroy quack is the question? I hope this may be satisfactorily answered—that is, how to do it successfully, not forgetting to consult economy. I do not ask a learned disquisition upon "red top," nor "horse sorrel." The simple question is—quack roots and grass. I shall not trouble you nor your correspondents, for an elaborate essay on the fibrous formation of the "root," nor of the causes of its appearance unless it shall be necessary. How can it be destroyed the most certainly with the least labor and expense? If there are any patents extant to annihilate it, let me into the secret. Some labor-saving machine to eradicate it, root and branch, is much needed. G. Y. J. *Dunnville, N. Y.* [We once found a lot which came into our possession late in the spring, so filled with quack grass as to be unfit for cultivation. We plowed and harrowed thoroughly, and then raked the roots into heaps and burnt them. This process was repeated several times during the summer, and thus it was "eradicated root and branch." If any one has destroyed it "with less labor and expense," he will please communicate the process.]

Fatal Disease in Sheep.—I have lost many sheep the last year from the following disease: A swelling, commencing under the under jaw and running back to the neck; the sheep eats but little, gets poor, and finally dies. Sometimes the swelling is gone for a few days; but I have never had one live long after having it once. If you or any of your subscribers can give a remedy, you will oblige at least One Subscriber. *Rockaway, Morris Co., N. J.*

Broadcast Sower—Portable Saw Mills.—Please answer through the Cultivator where Stevens' Broadcast Seed Sower is to be had. Give the name and address of the manufacturer. [Address W. S. Sampson, Boston, Mass.] Also where a two or three horse-power saw mill can be got, and the price. W. W. Wilkie. *Ramsey, Can.* [A two-horse power will cost $116—portable circular saw mill, $37—extra saw for splitting boards, &c., $7—cross cut saw for cutting logs, $25. They can be procured at the Ag. Warehouses in this city.]

Bee Books.—Please inform me through the Co. Gent., what you consider to be the best work on the raising and management of bees for profit. I want a work which details all the recent improvements, inventions and discoveries pertaining to the hive and the apiary, and the habits and instincts of the bee. C. H. H. *St. Louis, Mo.* [There are several Bee-books, by Langstroth, Quinby, Minor, Weeks, and others. We connot undertake to decide which is the best.]

Guano on Grass Lands.—I wish to know through *The Cultivator*, the experience of practical farmers, as to the results of the application of guano to grass. When is the best time to apply it, and what quantity per acre? Also, can it be applied with any certainty of success? Any information on the subject will confer a favor on one at least of your many readers. R. S. Stoddard. *New-London Co., Ct.* [We shall be glad to hear from any of our readers in answer to the above. In the mean time we may say, that for meadows guano should be mixed with several times its bulk of coal ashes, pulverized charcoal, or fine soil or muck, and applied on a wet day early in April, that it may have the benefit of the spring rains.]

Root's Patent Cultivator.—We see an inquiry in in your paper of May 15th, by a Canadian gentleman, about F. P. Root't Patent Three-wheel Cultivator. They are manufactured by Ganson, Huntley & Co., Brockport, Monroe Co., N. Y., who are sole owners of the Patent right. g. h.

Cider Mills.—*P. F., Lachine, C. E.*—You can get good portable cider mills at the agricultural warehouses in this city for $40 to $45.

Draining.—I have a field of several acres of good dry soil, excepting perhaps a quarter or half an acre, which is wet, and needs draining. The field has a gradual slope. Now where shall I drain it too? The wet place is completely surrounded by good dry soil. Also another field which needs draining, and is a dead level. Where shall I drain this too? The first field slopes regularly all one way. W. J. P. *Lakeville, Ct.*

Foxes Killing Lambs.—I have a remedy which has never failed for the last fifteen years in practice—to wit: Mix sulphur and lard, and rub it on freely about the necks of the lambs. One application is usually sufficient. A. B. Wilcox. *Harpersfield, N.Y.*

Stump Machines.—Can you, or any of the readers of your valuable paper, inform me where stump machines are kept for sale—Stewart's Patent, or any on that principle. I am told western people buy them in New-York, but I can't find where. Information will oblige at least one of your subscribers. Edmund Rose. *Delhi, N. Y.* [We are not aware that stump pullers are any where kept manufactured for sale. You can see a model of Stewart's with Willis' improvement, at Saxton & Co.'s Ag. Book-store, 140 Fulton street, New-York, from which you can make one.]

Extracts from Correspondence.

Half-blood Silesian Fleeces.—I send you the weight of fleeces for four years, of some half Spanish and half Silesian sheep, which will speak well for the cross bloods.

Buck No. 16—	1st fleece,	12 lbs. 8 oz	
" "	2d do.	17 " 12 "	
" "	3d do.	22 "—	13 months growth.
" "	4th do.	20 "	
Making············		72 lbs. 4 oz.	in 4 years.
Ewe No. 33—	1st fleece,	10 lbs. 8 oz.	
" "	2d do.	10 "	
" "	3d do.	10 " 4 "	
" "	4th do.	9 " 12 "	
Making············		40 lbs. 8 oz.	in 4 years.
Ewe No. 28—	1st fleece,	10 " 12 "	
" "	2d do.	10 " 4 "	
" "	3d do.	9 " 8 "	
" "	4th do.	10 " 4 "	
Making············		40 lbs. 8 oz.	in 4 years.

The above are medium sized sheep, and the two ewes have raised three lambs each. Geo. Campbell. *West Westminster, Vt., May* 30, 1856.

The Winter, &c., in Oregon.—Extract of a letter from a subscriber, dated St. Helens, Columbia county, March 29, 1856—"I have been in Oregon over eight years, and we have had the hardest freeze the present winter during that time. The last of December and first January were quite cold, but no snow. The winter since has been mild and very pleasant, with very little rain. The wheat was generally killed by the freezing, but the farmers have sowed again, and the crop now looks well. The white wheat we sow here, will come good sowed from August to April. A great deal of damage has been done to young fruit trees by the winter, by killing them just below the collar where the top fiber appears. Out of two hundred trees I have not lost one by the freeze. They were all well mulched with partly rotted hay and straw during last summer. Those of my neighbors near by, that were not mulched, on the same kind of land, were badly killed. The peaches are in full bloom—also pear, cherry and plum; the apple is beginning to show red clusters of fruit buds. The grass is a foot high in many places. Last year the peach trees bloomed in February. We have a kind of wild currant here in Oregon that blooms in February or March, and is the handsomest bush I have ever seen. The flowers are very numerous, and remain a long time on the bush; they are of a deep pink color, one of which I send you in this letter; the fruit is of no use, being very sweet and musky, something like the common black currant. The bush grows ten or twelve feet high, and is very hardy. I think that they will do well in any of the states as far north as New-York. When the berries are ripe I will send you some of the seed. Joseph Merrill."

We shall be glad to receive the seeds. Judging from the flowers received, this wild currant must be a very beautiful shrub.

The Osage Orange.—This winter has been a hard trial upon the Osage Orange. In some places the side branches have been killed. I have heard of some hedges being seriously injured by the extreme cold weather; but as far as I have observed, it is in fine order, and making luxuriant growth this spring. I think Downing remarks that this plant will not sprout from the cuttings of the roots. Accidentally I have seen the facts which he discredited. Some root cuttings were left partially covered with moist earth, and in a little time they sprouted. Upon examination I found that the end of the cutting was dry and hard, but just at the surface of the ground the root had swelled, and the bark cracked, so that the sprouts came through, presenting a singular appearance. In others, where the end of the cutting was below the surface, branches had pushed from between the bark and wood. These root cuttings were in a very moist place. The hedge is being planted by the mile in all this region, and when fully grown and in its summer dress of dark glossy green foliage, is a great ornament to the farm. It requires constant attention, however, and hence is not a suitable fence for the unthrifty. E. S. Lippitt. *Cincinnati, O.*

Middlefield, Mass.—In noticing last week the sale of cattle by Mr. Thorne, you did but partial justice to the enterprising farmers of Middlefield, Mass. In addition to the purchase of 'Roan Duke,' by Mr. Eldridge Pease, for $500, Mr. Harlow Loveland of the same town, has recently purchased of Isaac N. Deforest, Esq., of Dutchess Co., the beautiful Devon bull 'Winchester,' which took the first prize at the last National Fair. He was purchased at the low price of $500. Lawrence Smith, Esq., of the same town, has added largely to his flock of New Oxfordshire sheep, including a very superior buck which has taken first prizes at County, State, and National Fairs, and is said to be one of the best in the country. Mr. Smith has now probably the best flock of mutton sheep in the State. It is composed of purchases made annually during the past four years, from the well-known flock of John T. Andrew, Esq., of West Cornwall, Ct. Thus in the classes of Durham and Devon cattle, and mutton sheep, the farmers of Middlefield have within their reach some of the very best blood in the State, and it is to be hoped they will have the good sense to secure the full advantage of its rapid dissemination. A. D.

Rare Phenomena.

Messrs. Editors—As I am a subscriber to the Country Gentleman, I see some strange things noticed there, and as this seems to be a most singular year with us, particularly in presenting most unheard of phenomenon in parturition, I send you the following. A neighbor of mine, Mr. Railey, had a mare that had a *horse* colt and a *mule* colt at the same time, (same foal.) Again, Mr. Moss had a mare that had a mule colt, and in about five weeks she had another. Another—Mr. Railey had a mare that was sick. In physicking her, they caused her to lose her colt, which was in February, and in the spring she had another. Now, gentlemen, if you or any of your subscribers can give any more unusual cases, I would like to see them, through your paper. J. W. N. *Woodford Co., Ky., May* 20.

Cure for Wens.

Messrs. Editors—I will give you a cure for wens on cattle. I had a valuable cow, which had a wen on the jaw as large as a common sized tea-cup when I commenced treatment. My remedy is to bathe the wen thoroughly once in twenty-four hours with fine salt and cider vinegar. Put in as much salt as will dissolve. This remedy thoroughly cured my cow in three weeks John Drake. *Delaware, N. Y.*

Hens Do not Turn their Eggs.

I noticed in the last number of *The Cultivator*, a recipe for keeping eggs, viz.: Packing in small boxes, to be turned once in twenty-four hours; and the writer concludes, by saying that the process is a very natural one, and consequently good, as the hens themselves are in the habit of turning their eggs once a day while hatching. Now I must beg to differ in opinion from the gentleman, as far as regards this habit of the hen, which I think is a mistake. I have paid strict attention to the rearing of fowls, for four years, but have never observed a hen turning her eggs, and have talked with other fowl breeders, but have never seen a person who had observed such a habit in their fowls. R. B. *Plattsburgh, N. Y.*

Notes for the Month.

The Fair Grounds at Watertown.—The President and Secretary of our State Ag. Society, have visited Watertown, at the request of the Local Committee, to examine the grounds prepared for the accommodation of the Society, and selected a lot in the bounds of the village, containing thirty acres; a fine grove of eight acres was included in the portion selected for the Fair Grounds. The Grounds can be reached from the center of the village, and from the railroads, very readily —side-walks extending to the Grounds—abundance of water from the mains from the water works which passes the Grounds, affording an abundant supply of water—the committee consider the grounds admirably adapted to the purpose; and from the known liberality and taste of the citizens of Watertown, they will, doubtless, be arranged in a manner equal, if not superior, to any heretofore occupied by the Society.

Cashmere Goats.—We are under obligations to R. C. Foster, Esq., of Nashville, Tenn., for samples of the wool from Cashmere Goats from the flock of Mr. Williamson of Sumner county, Tenn., who Mr. F. informs us has about thirty of these goats. The wool or hair, as we suppose it may more properly be called, is a beautiful soft and silky article, from ten to twelve inches in length. We should be glad to have the history of this flock, the amount of produce, &c.

U. S. Ag. Society.—We have received the Journal of the U. S. Ag. Society, Part I, for 1856. It is occupied solely with the doings of the Society at its annual meeting at Washington in January last, including the Annual Address of President Wilder, the Papers read at the meeting by D. J. Browne, Esq., of the Patent Office, Capt. Van Vleit of the U. S. Army, Prof. Baird, Mr. T. Glover, Dr. Easter, and others.

Albany Co. Ag. Society.—A meeting of the Board of Directors was held in this city last week, when G. I. Van Allen was appointed Secretary, vice Charles R. Woolley, deceased, and Dr. P. B. Noxon of Watervleit, a Director, vice D. D. T. More, resigned. The 23d, 24th and 25th days of September next were selected as the time for holding the next Annual Fair, and a committee appointed to procure from the Common Council of this city the Washington Parade Ground as the place for holding the same.

New-Jersey State Fair.—This Fair, it will be remembered, is to be held at Newark, Sept. 9—12, and spirited efforts are making to get it up in the best manner, and to make it creditable to the intelligent farmers of that State, and no doubt all our New-Jersey readers will be prepared to aid the exhibition by presenting more or less of the products of their skill. We see by the Premium List just received, that inducements are offered to exhibitors from other States, by the offer of liberal prizes on Stock of all kinds.

What has been Done on One Acre.—Some of our readers who cultivate only a small patch of land, as some do in and near villages, may take some hints from the following statement which is a summary of the management of an acre by the editor of the Maine Cultivator, several years ago. From one-third of an acre in corn he usually got thirty bushels of sound produce, besides some soft or refuse. This might serve for family use and for one or two hogs besides. From the same ground he got 200 pumpkins and beans for the whole year. From a bed of six rods square he usually got sixty bushels of onions and with the amount bought his flour. The rest of the ground was appropriated to potatoes, beets, parsnips, cabbage, green corn, peas, beans, cucumbers, melons, squashes, &c., with fifty or sixty bushels of beets and carrots for the winter food of a cow. Then he had also a flower garden; gooseberry, raspberry, and currant bushes; and a few choice apple, pear, plum, cherry, peach, and quince trees. Now if an acre can be made to produce so much in Maine—almost enough for all the necessary supplies of one family—why may not the same thing be done elsewhere?

Shipment of Cattle, &c., to the United States. —The ship Leona, Capt. Norris, which left Liverpool on the 23d of April, for Philadelphia, had on board 24 head of Short-Horn cattle—a celebrated bay entire horse, "Lord Raglan," a descendant of Beeswing—a lot of South Down sheep, and some valuable dogs. Among the cattle are several belonging to Mr. Thorne, of Dutchess. The rest of the cattle and the other animals belong, we believe, to Messrs. Marshall and Smoot of Kentucky.

Windham Co. (Ct.) Ag. Society.—Some friend has sent us the excellent Address, by Rev. Dr. Vinton of Boston, at the last Fair ot this Society, together with the Prize List for this year's Fair, which is to be held at Brooklyn, Sept. 17 and 18. We hope Dr. Vinton's Address has been extensively distributed and thoroughly read by the farmers of Windham.

The Sheep Show at Penn-Yan.—We have not received the list of prizes awarded at this exhibition, as we expected. The *Yates County Chronicle* of last week, says—"The Fair of the Wool Grower's Association, which was held in this place last week, was pretty largely attended during the first and second days, but not so largely on the third and last day, owing to inclement weather. The display of sheep was very fine, particularly of the fine-wooled variety. Probably there was never before so good a collection of first class sheep, put on exhibition in this country. We understand the number was twice as large as was exhibited at Bath last year. All the arrangements for the Exhibition, and the care of stock, &c., were first rate. The buck which carried the Sweepstakes Premium of $60, was purchased by Miles G. Rapalee, of Milo, for $300. His pedigree is given by Mr. Wooster, by whom he was exhibited, as follows: "He was sired by my celebrated Buck, Matchless, raised by E. Hammond, Esq., of Middlebury, Vt., and for which I paid $300 when a lamb. This Buck was sheared the 24th of May last, his fleece weighing 20 pounds 8 oz., of unwashed wool. He will shear the present time about 23 or 24 pounds."

Experiences in Draining.—John A. Hopkins, Esq., who works a fine farm of 160 acres, a few miles north of Buffalo, informed us during a recent call, that he had tried draining with tile on 25 or 30 acres thoroughly or in part, and with the best results. He deserves much credit for his enterprise as shown in this and other experiments. Mr. Mason, of the firm of Manly & Mason, whose "Oaklands" Green-houses at Buffalo, are probably among the most extensive and commodious in the country, has also, as we were informed, done much to bring wet and marshy portions of his Nursery grounds into a state of high fertility by judicious draining.

A Note for Naturalists.—We counted under the eaves of one of Mr. Hopkin's barns, no less than *seventy-two* nests of the common barn swallow, within a distance of perhaps 40 feet, all apparently inhabited —a fact remarkably illustrative of the gregarious habits of this bird.

Skilful Poultry Breeding.—Mrs. Hopkins raised last year from *five* turkeys, broods numbering in all no less than *ninety-five*—a fecundity no less note-worthy than profitable, the income at a dollar each being a larger return from a similar exponse than could be obtained in most farming speculations. Who can beat this?

The American Grape Grower's Guide—being a practical Treatise on the Cultivation of the Grape Vine, in each department of the Hot-House, Cold Grapery, retarding house, and out-door culture. By William Chorlton, author of the "Cold Grapery," &c. New-York; Saxton & Co.

This is an enlargement and improvement of the author's former treatise entitled "The Cold Grapery," which was a valuable work from its simple and plain description of the management of a cold house, derived from ample and successful experience. It now contains 170 pages, and is illustrated with a number of engravings. Those who wish clear, plain, and straightforward directions how to manage their grape-vines, in all the different modes of culture, will find this just the book they want.

The South Carolina Agriculturist.—We have received the first number of this journal. It is to be published monthly at Columbia, by the S. C. State Ag. Society, at $1 a year. It is edited by our old friend, Col. A. G. Summer, who we are sure will make it worthy of the liberal support which we trust it will receive.

An Ancient Authority.—Mr. Wainwright of Dutchess Co. has in his possession a copy of a very early work on English Agriculture. It was printed in London over two hundred years ago, in 1652, tho palmy days of Protector Cromwell, to whom it is dedicated in an appropriately humble and flattering address of some pages. Its title page is headed "*Vive la Republick*," and is as follows:—"The English Improver Improved, or the Survey of Husbandry Surveyed. Discovering the Improvablenese of all Lands: Some to be under a double and Treble, others under a Five or Six Fould. And many under a Teun Fould, yea some under a Twenty fould Improvement. By Walter Blythe, *a lover of Ingenuity*." The above is enclosed within a border coarsely engraved upon copper, representing the days when swords shall be beaten into pruning hooks, by various artistic designs which we have not room to describe. It faces a second title-page, which is more full, and conveys a tolerable idea of what "Peeces of Improvement" the author especially recommends. The reader will gather from them that the best systems of the present day are not quite as new as might be supposed, while Mr. W. especially called our attention to a caution in the body of the work, against *quack Agricultural chemists*, quite as forcible now, as the day it was written. We quote the second page alluded to:—"All clearly demonstrated from Principles of Reason, Ingenuity, and late but most real experiences; and held forth at an Inconsiderable charge to tho Profits accrewing thereby, under Six Peeces of Improvement.

"1. By Floating and Watering such Land as lieth capable thereof.

"2. By Draining Fen, Reducing Bog, and Regaining Sea Lands.

"3. By such Enclosures as prevents Depopulation and and advanceth all Interests.

"4. By Tillage of some Land lost for want of, and Pasturing other destroyed by Plowing.

"5. By a discovery of all Soyls and Composts with their nature and use.

"6. By doubling the growth of Wood by a new Plantation.

"*The Third Impression much Augmented.* With an Additional Discovery of Severall Tooles and Instruments in their Forms and Figures promised. *With a second part;* containing Six Newer *Peeces of Improvement.* 1. Our English Husbandring Claver, and St. Foyn as high as may be. 2. The facilitating the charge and burden of tho Plough, with divers figures thereof. 3. The planting Welde, Woade and Madder, three rich commodities for Dyers. 4. The Planting of Hops, Saffron and Liquorish, with their Advance. 5. The Planting of Rape, Cole seed, Hemp, and Flax, and the profit thereof. 6. The great advance of Land by divers Orchard and Garden Fruits. *The Experimenting whereof makes good the Improvement promised.*"

Devon Cattle.—R. H. Van Rensselaer, Esq. of Morris, Otsego Co., one of the oldest and most reliable breeders of Devons in this state, has issued a Catalogue of pure-bred Herd-book North Devon Cattle, which he has for sale, which may be seen at this office or which may be obtained by addressing Mr. V. R. at Morris.

Short-Horns for Massachusetts.—Mr. Thorne of Dutchess county, has recently sold two fine bull calves to go to Massachusetts—one, "Roan Duke," from Cornelia by Grand Duke, to Eldridge Pease of Middlefield—the other, "Marquis," from Myrtle by Squire Gwynne 2d, to George Crane of Chester.

Grand Duke Bull.—James B. Clay, Esq. of Ashland, near Lexington, Ky., has recently purchased the yearling bull "Royal Duke," of Mr. Samuel Thorne, Thornedale, Dutchess county. Royal Duke was bred by Mr. Thorne—red, calved Oct. 29, 1854—got by imported bull Grand Duke—dam imported cow Frederica, whose portrait was published in tho Co. Gent. of 10th Jan. last.

More Short-Horn Sales.—We learn that Judge Sheldon, of Sennett, N. Y., has sold to S. P. Chapman, Esq., of Mount Pleasant Farm, Clockville, Madison Co., N. Y., his two cows, 'Lucia 4th,' and 'Red Lilly.' These cows are said to be very superior specimens of the Short-Horn, and were the *choice* of the Judge's entire herd. They were purchased at a high figure, and we are credibly informed that they make a fine show among the Mount Pleasant herd. (See Mr. Chapman's advertisement of Short-Horn bull calves.)

Horse Exhibition at Lyons.—The *Lyons Republican* of the 6th, says—"The elements are against the Exhibition, but it will bo successful. Great numbers of superior horses are entered, and more will be this forenoon, unless the weather should be too unfavorable. Our village is filled with strangers from all parts of the State."

The Michigan or Double Plow.—S. W. writes us that one of these plows has stood a whole year or more in front of a country store in one of the western states, ticketed "For Sale, Cheap," without finding a single farmer disposed to make trial of it. He states that the merchant, with whom the plow was left for sale, tells of a great many queer, sneering, and would-be-witty remarks and inquiries which different persons have made in regard to it, while he cannot recollect of hearing any remark or inquiry which betokened an unprejudiced mind, or one really desirous of information or disposed to be fair and candid in its judgments. S. W., however, is one of a different stamp, and really desirous of ascertaining what those who have tried this plow think of it. We shall be glad to give a place in our columns to any who having tried this plow for a season or two, shall send us a statement of his experience with it. Such information derived from experience will be sure to benefit, not one only, but a great many of our readers. Meanwhile, we will furnish S. W. and others with some of the more useful items of information in regard to this plow, taken from an article which lately appeared in the *Granite Farmer*, giving the experience of one who has tried it.

Mr. D. M. Sargent, the writer of the article referred to, states that he has used the Michigan or double plow for two years, with gratifying results. That used by him was manufactured by Prouty & Mears, Boston. He confesses to having had some *qualms* when he went to the depot after his plow, caused, we presume by fears that his purchase might prove a humbug, and expose him to the laughter of his neighbors. He says it very completely covers up all grass and weeds, and thus very materially lessens the work of after cultivation. In fact they get so thoroughly buried that they cannot become at all troublesome. In order to have a plow of this kind work to the best advantage, he says that "the width and depth of the furrow slice should be nearly equal, the forward plow never exceeding two inches in depth, while the other may run to any required depth. It will run a little wider than it does in depth, however, as, for example, ten inches deep eleven or twelve wide; "but it will not work well with any more difference."

Mr. S. thinks the Michigan the best for use in New-Hampshire, (for deep plowing he means, we presume,) and the next best the Diamond furrow plow, which does its work better than any other *single* plow he ever saw, and which needs, he thinks, only to have the small forward plow of the Michigan double to make it a perfect article.

Limestone Water for Irrigation.—The *Virginia Farmer*, alluding to the discussion on the effects of limestone water in irrigation in the Country Gentleman, says—"One writer contends that the calcareous tufa will be deposited on the surface of the land in so close a crust as to smother the vegetation. We wish that writer would go to Rockbridge, Va., and see our grandfather's meadow which has been irrigated with limestone water and not plowed, for 40 years, and instead of a desert of calcareous tufa, he will see a soil which cannot be bought for $100 an acre, covered with such a sward as would do honor to Orange Co, New-York. Our best lands are those which have been irrigated longest with our highly charged limestone streams."

Geo. W. Gregg's Cattle Sale.—We chanced to be present at this sale, which took place at Circleville, O., June 5th. The prices realized were considered fair, the animals generally meritorious. Among them was one imported cow 'Raspberry,'—which, however, (for $800) and three of the best of the other cows (for $300 each) were bid off by Mr. Gregg, who had reserved the right of making four open bids. Several bull calves found no demand. The prices realized ranged, on many of the cows, from $35 to $85, while 'Pink,' from 'Isaac' imported, brought $120, buyer Thos. Huston; 'Fanny,' by Belvidere, $130, buyer Mr. Dunn; 'Madaline' $150, buyer Mr. Crouse, we think, of Loraine Co., and 'Rose Bud,' from Raspberry, by Isaac, went to R. G. Corwin for $250. The bull 'Noblo,' brought $255, from Mr. Dunn, and two young bulls were sold for $150 and $100 respectively. Making an average for ten cows, aside from Mr. Gregg's bids, of about $100 each. We believe Mr. G. purposes going on as a breeder, with a renewed and perhaps a somewhat improved herd—in which line we wish him all success.

Winter Wheat in New-Hampshire.—Extract of a letter from Levi Bartlett, Esq., of Warner: "Upon farther inquiry, I find the amount of winter wheat sown here last autumn, was much larger than I thought for. Over 40 bushels of seed was sown in one small school district. In others, nearly as much—nearly all of which is looking finely. Should it do as well as it now promises, we may set it down as a fact that we can grow winter wheat in New-Hampshire as well as they can "out West."

Spring Exhibition of the Cincinnati Hort. Society.—We reached Cincinnati a second time, just in season for a call at this show before its close. Cut flowers after a week's display could but be rather faded in glory. Pot plants, though not present in large numbers or great variety, included a number of remarkably fine specimens. Messrs. Wm. Heaver, John Sayers and others, whose names we did not ascertain, were among the largest exhibitors of these. We have not seen the list of premiums awarded, except on fruits. There was considerable feeling in respect to the decision of the Strawberry prizes, between Hovey's and western seedlings. The "Grand Sweep-stakes" was awarded to four quarts of Hovey's over all others, John C. Youtcy, exhibitor—a decision considered a triumph by one party, but by no means quietly acquiesced in by the other. Two special premiums were awarded F. G. Carey, respectively for the best two quarts of Longworth's Prolific and of McAvoy's Superior. The premium for the best six varieties was awarded to W. E. Mears, for Hovey's Seedling, Longworth's Prolific, Genesee, Washington, McAvoy's Superior, and Monroe Scarlet. T. V. Peticolas of Mt. Carmel, received the premium for the second best six also for finely preserved apples.

The Cherry-Bird.—If your correspondent H. H. B., will procure saplings a few feet taller than his cherry trees, and remove all the branches from them except a few at the top, and shorten those to about one foot in length, and secure a sapling through each tree, as near the center as possible, having the sapling project about three feet above the top of the tree, he will be able to shoot the cherry birds without injury to his trees. But I hope he will not shoot either the robins or the woodpeckers, as I think the insects they destroy more than a compensation for the cherries they eat. L. A.

Distance for Apple Trees in Nursery.—Last fall I planted some pomace with the intention of raising a nursery. I wish to know how far the rows should be apart and how far apart in the row. J. H. B. *Newton, Ct.* [If for a nursery of apple trees, as we suppose our correspondent intends, the trees should be planted in rows four feet apart, and the trees 8 inches to one foot in the row. If the trees are for setting in orchards when 6 or 7 feet high, 8 inches, or even 6 inches, will not be too near in the row; but if they are to remain till 8 or 10 feet high, the distance should be at least one foot.]

Angola Rabbits.—Will you have the kindness to inform me where I can get a pair of the pure French Angola Rabbits, and the price. By so doing you will much oblige. W. L. T. [Any person having them will address W. L. Thayer, Newburgh, N. Y., with the desired information.]

Poland Hens.—Can you inform me where I can purchase a good pair of Black Poland hens? Doubtless some of your subscribers have them. W. R. H. [We presume you can get them of Wm. Hurst at the Alms-house, or of E. E. Platt or E. A. Wendell, or half a dozen others, in this city.]

A Premium Crop of Hay.—The reports which were prevalent a year or two ago, about twenty ton crops of hay from one acre, in Great Britain and Italy, passed the *very utmost limits* of credibility. When we were subsequently told that the acre was one-fourth larger than the English or statute acre, or 1 27-100 acre, that the grass was Italian rye-grass, that the land was dressed often with liquid manure, that in this way and by the natural humidity of the climate, the growth was so luxuriant as to admit of seven or eight cuttings in the course of a year, as on the irrigated meadows of Lombardy, and that the hay itself had never been weighed but only estimated from the weight of grass on a certain proportion of an acre—then our incredulity and surprise were moderated to a certain extent. From some of the remarks which were called forth by the reports alluded to, we are disposed to think that if any farmer were to assert that he had obtained four and a half tons of hay from an acre in any of our Northern, Middle, or Western States, he would be suspected of "stretching it" a little. That this has been done, however, we learn from a late No. of the *Ohio Farmer*, in which it is stated that the premium crop of hay last year, in Summit county, was raised by D. E. Fenn, of Talmadge, and the yield per acre amounted to 4 tons and 1,315 lbs. of timothy and red-top.

State Shows, 1856.

New-Jersey	Newark,	Sept. 9—12.
Vermont	Burlington	Sept. 9 to 12.
Canada East	Three Rivers	Sept. 16—18.
Virginia	Wheeling Island,	Sept. 17—19.
Ohio	Cleveland,	Sept. 23, 24, 25, 26.
Canada West,	Kingston,	Sept. 23—26.
Am. Pom. Society,	Rochester,	Sept. 24—30.
Michigan,	Detroit,	Sep 30 & Oct. 1,2.3.
New York,	Watertown,	Sep. 30 & Oct. 1,2,3.
Illinois	Alton,	Sep. 30 & Oct. 1,2,3.
Pennsylvania	Pittsburgh,	Sept. 30 to Oct. 2.
Kentucky	Paris,	Sept. 30 to Oct 5.
National Ag. Show,	Philadelphia,	Oct. 7.
California,	San Jose,	Oct. 7, 8, 9.
Wisconsin	Milwaukie,	Oct. 8 to 10.
New Hampshire,		Oct. 8, 9, 10.
Iowa,	Muscatine,	Oct. 8—10.
North Carolina,	Raleigh,	Oet. 14—17.
Georgia,	Atalanta,	Oct. 20—25.
Indiana,	Indianoplis,	Oct. 20—25.
Maine,		Oct. 28—30.
Alabama,	Montgomery,	Nov. 11—14.

Butter Making in Winter.

Messrs. Editors—I noticed in the Cultivator for March, the complaint of an "Old Subscriber," that his butter did not come—also the reply in the May number, by a "Saratoga Farmer," who says that he has no difficulty in having butter come—"sweet, rich looking butter, that does not look like the old fashioned winter butter exhibited in our shops." Now that is just the kind of butter *we* make, without heating the milk either; he heats his, and does not allow it to freeze I think the secret lies in the temperature, and not in the heating. Our buttery is a movable one, made of two upright boards, a little wider at the bottom than at the top, (for comlieness sake,)—cut at the bottom like a swallow's tail, that it may stand firm. Then they are connected by parallel shelves of suitable width, on which to set the pans of milk, of about six feet long, from within two feet of the floor to the top; but no higher than can pass through any door in the house. Then in the coldest weather this set of shelves is moved into the warmest room in the house. In coldest weather the pans are set on the topmost shelves to take the rising heat, and on the lower shelves in moderate weather, or moved into a cooler room as the case may require, so that at all times, except in extreme warm weather, the cream will roll up and churn like that in June; and if it is not as sweet, it is good enough for an epicurean. The temperature, and not the churn or cow, is in the fault, although there is a preference in cows and churns, and some will make more butter than others of the same cream. This frame may be made nice, and painted, so that it will not disgrace a *farmer's parlor;* and if it does not look well beside the piano, then hang a curtain before it. John Bridgman. *Northampton, Mass.*

Self-Holding Plow.—Last week we saw in operation on the farm of Mr. Lyon, on Saltonstall street, a new plow, that if generally introduced, will save many an aching pair of arms. It is the invention of Mr. Binkerhoof, of Batavia, who was superintending its operation. It differs but little from some other plows now in use, but with the addition of a guiding wheel about two and a half feet in diameter which runs in the furrow, and guides the plow, guaging the width of the furrow, while another wheel of less diameter supports the plow on the opposite side. The grounds plowed were a stiff sod with a heavy clay subsoil, and which would try the merits of the machine most effectually, yet it did its work perfectly, with no assistance from the driver except on turning at the ends. This plow was introduced here by Dr. Crawford, who has used the plow on his own farm, and who is prepared to answer all questions about it.—*Ontario Times.*

WATER-CURE
JOURNAL

The Water-Cure Journal—devoted to Physiology, Hydropathy, and the Laws of Life and Health—with Engravings illustrating the Human System—A Guide to Health and Longevity. Published monthly at $1,00 a year, by

Fowler and Wells, 308 Broadway, New-York.

Good Health is our Great Want.—We can obtain it only by a knowledge of the Laws of Life and the Causes of Disease. All subjects connected with Diet, Exercise, Bathing, Cleanliness, Ventilation, Dwellings. Clothing, Occupation, etc., are clearly presented in the Water-Cure Journal. Hydropathy is fully explained and applied to all known diseases. Water-Cure is not equaled by any other mode of treatment in those complaints peculiar to Women. Particular directions are given for the treatment of ordinary cases at home, so that all may apply it. The journal is designed for the "People." Believing Health to be the basis of all happiness, we rely on the friends of good Health to place a copy of The Water-Cure Journal in every family in the United States. Single Copy, $1.00 a year; Five Copies, $4.00; Ten Copies, 7.00. Now is the time to subscribe. Please address FOWLER & WELLS,

No. 308 Broadway, New-York.

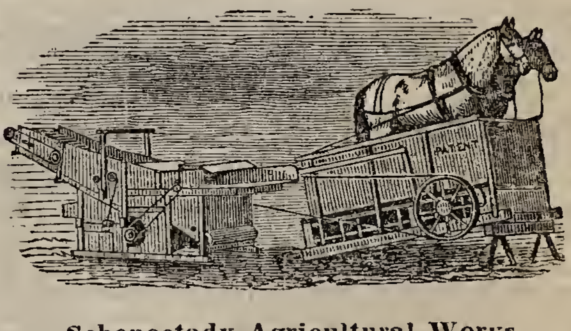
June 12—w4tm1t

FOR SALE,

THAT SPLENDID ISLAND in the river St. Lawrence, known as **Hacey Island**, situated in the town of Louisville, St. Lawrence Co., N Y., 30 miles below Ogdensburgh, containing 1868 acres of excellent land, adapted either for pasture or tillage. It is well known as the best grazing land in the county—100 acres are under cultivation, and well fenced, with 8 complete farm steadings, in addition to the Homestead on which there is a commodious dwelling, barn 160 by 40 feet, sheds 400 by 24, workshop, granary, &c., all in good repair. Also several large orchards, and a splendid hard-wood bush—no waste land. Terms—one-half down—remainder as agreed on. Apply to the proprietor,

WILLIAM R. CROIL,

June 12—w2tm3t* Louisville, St. Lawrence Co., N. Y.



Schenectady Agricultural Works.

IN consequence of the increased demand for their Improved RAILWAY HORSE POWERS,
THRASHERS AND SEPARATORS,
Combined THRASHERS and WINNOWERS.
Circular SAWING MACHINES and CLOVER HULLERS,

The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly. G. WESTINGHOUSE & CO.

Schenectady, March 6, 1856—w&mtf

Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 9th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.

Dec. 27—w&mtf

Colombian Guano—Try it.

(From The June Number American Farmer, published in Baltimore.)

We call attention to the advertisement of the Philadelphia Guano Company, who have recently made a contract with the republic of Venezuela, by which they are authorized for a series of years, to export the guano from all the Islands belonging to that government. As those Islands are located in the Caribbean Sea, at a short distance—about 1900 miles—from our own shores, the cost of freight is comparatively trifling, and the article can therefore be furnished at very low rates, when compared with the price demanded for Peruvian Guano.

The guano islands embraced in the contract of this Company are numerous, and the character of the deposits to some extent varies in the proportion of organic matter, ammonia, and the phosphates they contain. They are all, however, as compared with the Peruvian, much richer in the phosphates, and less abundantly supplied with organic matter and ammonia. At present we understand the Company design importing only that quality designated by the Inspector, Mr. Reese, as Colombian Guano, which is by far the richest phosphatic guano ever yet discovered, containing more than three times the amount of phosphates found in the Peruvian, and much more than is found in bone dust, and Mexican Guano—Peruvian Guano rarely contains more than from 15 to 30 per cent of the bone phosphate of lime, and the different brands of the Mexican Guano, as inspected at Baltimore, contain from 25 to 67 per cent while the guano marked by the State Inspector *Colombian* letter A. contains Phosphoric Acid, equal to from 80 to 90 per cent of Bone Phosphate of Lime, and the guano marked Colombian letter B. contains Phosphoric Acid equal to from 70 to 80 per cent. of Bone Phosphate of Lime.

Without entering into the discussion as to the comparative value of ammoniacal and phosphatic manures, no one pretends to doubt the real value of the latter, while some of the highest authorities among men of science, attribute the chief value of all guanoes to the phosphates they contain. Be this as it may, experience seems to have determined that the phosphatic manures are of more permanent duration, and that where they are less efficient as to the crop of wheat, they endure longer, and are more effective in the after growth clover and grasses. Those of course who adopt the views of Prof. Liebig, and other high authorities, as to the value of mineral manures, will readily admit the great superority of Colombian Guano over other varieties, it being as stated in the U. S. Patent Office report for 1854, "by far the richest source of phosphoric acid for the farmer yet discovered," and in the words of Dr. Stewart, the "*Ne Plus Ultra* of Phosphatic Guanoes."

The virtues of bone dust as a permanent fertilizer are well understood. and the ordinary Mexican Guanoes have been extensively experimented with, and their value acknowledged. Whatever merits these manures possess, must exist in a high degree in Colombian Guano, on account of its superior richness in the leading fertilizing principle—the phosphates—common to them all.

The difficulty made as to these manures, that they are not soluble, and the consequent doubts and apprehensions of farmers who are convinced of the value of their main constituent, as to their availability in the production of crops, is worthy of consideration.

1. In the use of these manures it would seem, that ultimately, at any rate, if not immediately, the farmer must reap the benefit of their application. They furnish an indispensible ingredient of fertility, and necessary constituent of plants. If it is not in condition to furnish the food of plants at once, it is only held in reserve until brought under the influence of solvents, which sooner or later are sure to make it available. A very observant farmer has said to us within a few days, that he will defy any one to find a piece of bone in his soil, after the second or third year, from the time of application. He uses no acid or other solvent, and does not care to have the bones ground fine. And let it be remarked that while a quick return is more immediately profitable, a slower but certain return is much safer for the land.

2. The solubility of Phosphates greatly depends upon the mode in which they are prepared. From good bones finely ground a beneficial effect is almost always immediately derived. From Mexican Guano some benefit seems always to accrue during the first year after its application, as well as on succeeding crops.

3. Whatever justice or force there may be in the objection of insolubility as applied to bone dust and Mexican Guano, does not rest, it is contended, against the Colombian Guano. It is reduced to a fine powder by grinding, and is thus prepared perfectly for the action of any solvent which may exist in, or may find its way to the soil. But independent of this it is asserted that it contains so large an excess of free phosphoric acid, that a sufficient portion for the use of plants during the first year after its application is rendered immediately soluble. This is questioned, and we give the authorities.

Dr. Stewart in his analysis states the per centage of phosphate of lime to be 77.49, and of free phosphoric acid 5.23, which latter substance he states would produce to each ton of 2,000 lbs., "215 lbs. of nascent *soluble* super-phosphates, besides 1550 lbs. of the common bone phosphates of other phosphatic Guanoes.

Dr. James R. Chilton, of New-York gives as the result of an analysis of a specimen recently submitted to him 74 87 per cent of neutral phosphate of Lime. with a little phosphate of magnesia, and 13.14 per cent of *soluble phosphate of lime*, with 6.67 of organic matter, with ammonia.

Dr. Hayes, of Boston, states that "it is in fact a kind of natural *bi-phosphate of lime*, by far the most valuable of any of those compounds yet discovered, when compared weight with weight."

Professor Jas. C. Booth, of Philadelphia, in the specimen he analysed found 74.35 of phosphate of lime and magnesia, and 9 60 of free Phosphoric acid, and he pronounces it "a remarkable substance, containing naturally 84 per cent of dry super-phosphate of lime." He also states that he would "prefer it greatly to any artificial super-phosphate, for any purpose to which the latter is applied."

On the other hand Dr. Piggot in his communication published in our No. of September last says, "strangely enough, the very erroneous opinion was quite commonly entertained, that the phosphoric acid in this hard enamelled rock, is combined with lime in proportion to form a super-phosphate," and after stating the results of his analysis, remarks:—"The most cursory inspection of these results, is sufficient to convience any one at all acquainted with Chemistry, that the lime cannot be united with phosphoric acid, to form a super-phosphate."

The analysis of Dr. Bickell, published some time after, if we mistake not, sustained the opinion of Dr. Piggot.

We confess that taking an "outside" view of the matter we are at a loss to understand how a soluble phosphate could accumulate in a region where, if accounts be true, "it never rains but it pours."

It is worthy of remark, however, in passing, that the highest authorities should be at variance on a question of fact which it seems to us there should be no difficulty in determining with absolute certainty.

We have thus set before our readers fairly this article of Colombian Guano, in its aspect as presented chemically. We do not on such a presentation only, however promising, recommend to farmers, an investment in this fertilizer. We have some practical results which give us strong hopes that it has very high value.

One farmer who is making several experiments instituted last fall, upon wheat, and whose judgment we entirely rely upon, says that these experiments thus far indicate a decided superiority of the Colombian over Peruvian Guano, upon soil where the Peruvian has been used with the usual success.

We hear of other cases of its apparent success, which leads us to anticipate that the best opinions of those who recommend it may be realized. And we would say to farmers now, that it would be very well worth their while to make trial of it on a small scale at one, and carefully. A few hundred pounds are sufficient for experiment, and will enable them to determine whether it will be likely to pay on the wheat crop in the Fall. Try it upon oats at the rate of 300 lbs per acre, and upon other crops at a somewhat large rate.

Price $36 to $40 per Ton. Every bag will have the following Brand:

COLUMBIAN GUANO,
IMPORTED BY THE
PHILA. GUANO CO.,
A. & A. A.

A. LONGETT, Agent, New-York.

Put up in Bags of 160 lbs. each.

For sale in lots to suit purchasers, by A. LONGETT,
31 Cliff-st., Corner of Fulton,, New-York.
June 19—w2tm1t

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan. 1—w&m1y*

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

UNION AGRICULTURAL

WAREHOUSE AND SEED STORE,

No. 23 Fulton Street, (near Fulton Market,) New-York.

THE undersigned having succeeded to the business for the Manufacture and Sale of Agricultural Implements and Machinery, heretofore conducted by Messrs Ralph & Co., at No. 23 Fulton-st., intends to continue the same in all its branches, and is prepared to furnish goods of the best style and quality at low prices.

Machinery, or any articles in the line, manufactured to order, according to pattern, at short notice.

His facilities for manufacturing enable him to offer to Dealers and Farmers the following leading articles at low figures:

Hand and Power Corn Shellers,
Fan Mills,
Plows, Harrows, Cultivators,
Revolving Hay Rakes,
Spring Tooth Hay Rakes, (the best rake in use.)
Cast Iron Corn Mills for Hand or Power
Road Scrapers, Wheel Barrows,
Field and Garden Rollers,
Corn and Cotton Planters,
Post or Ground Augurs,
Hay, Straw and Stalk Cutters,
Wagons and Carts,
Vegetable or Root Cutters,
Sausage Cutters and Stuffers.

In connection with extensive farming operations, I have for some years past given much attention to the raising of thorough-bred SHORTHORN, NORTH DEVON and AYRSHIRE CATTLE, and other fine stock, and now offer the advantage of my knowledge and experience to persons desiring to purchase. A. M. TREDWELL.

March 27—w5t&eow4t—m3t

Country Residence for Sale.

DELIGHTFULLY situated, one mile north of the village of Claverack, half a mile from the Hudson River Institute, and four miles from the city of Hudson; containing 37½ acres of good quality land. There are about 150 young trees of choice fruit, a fish pond, a never-failing spring between the house and barn, and a stream running through the farm The buildings are almost new, and fences in good condition. Price $4,500; terms of payment to accommodate purchaser; and possession given on the 1st of April next. Address the subscriber at Hudson, Columbia Co., N. Y.

May 29, 1856—w6tm2t* JOHN McKINSTRY.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,

GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

Green Mountain Morgan Stallion.

FOR SALE.—The subscriber offers for sale his beautiful Green Mountain Stallion, from the celebrated old Green Mountain Morgan of Royalston, Mass. He is 6 years old,—weighs 1000 lbs—of a beautiful dark chestnut color—a fine figure, prompt action, and a superior roadster, combining in a marked degree all the characteristics of the celebrated Morgan stock. His colts stand *deservedly high*, and are among the best in this part of the country. To those wishing to improve their stock of horses by a mixture of a strain of the old Morgan blood, this opportunity offers a rare chance

JAS. P. UPHAM,
May 1—m3t Claremont, N. H.

The Black Hawk Horse Raven,

WILL stand at the stable of the subscriber the coming season. This horse took the first prize at the Fair of the State Agricultural Society of Connecticut last fall, in the class of stallions of all work, seven years old and over. All of his colts (several in number,) competing for premiums at the State Fair were successful, which was also true at the Fair of the Litchfield County Agricultural Society, and of the Housatonic Agricultural Society, which is sufficient evidence of the value of his stock.

ROBBINS BATTELL,
May 1—w1tm2t Norfolk, Ct.

FOR SALE CHEAP.

TO CLOSE a consignment, a large lot of

AGRICULTURAL IMPLEMENTS,

Consisting of Plows, Straw Cutters, Corn Shellers, Fan Mills, Seed Sowers, Garden Rollers, Churns, Horticultural Tools, &c., &c., at cost prices.

JOHN ALEXANDER,
May 15—w4tm2t 34 Cliff-st., (up stairs,) New-York.

AGRICULTURAL IMPLEMENTS,

WHOLESALE and retail—FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse.*

GRIFFING, BROTHER & CO.
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

	PRESENT LIST OF PRICES.	*Weight.*
2½ horse power,	$225	1500
3 ...... do	$275	1800
4 ...... do	$340	2000
6 ...... do	$520	3500
8 ...... do	$680	4500
10 ...... do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.

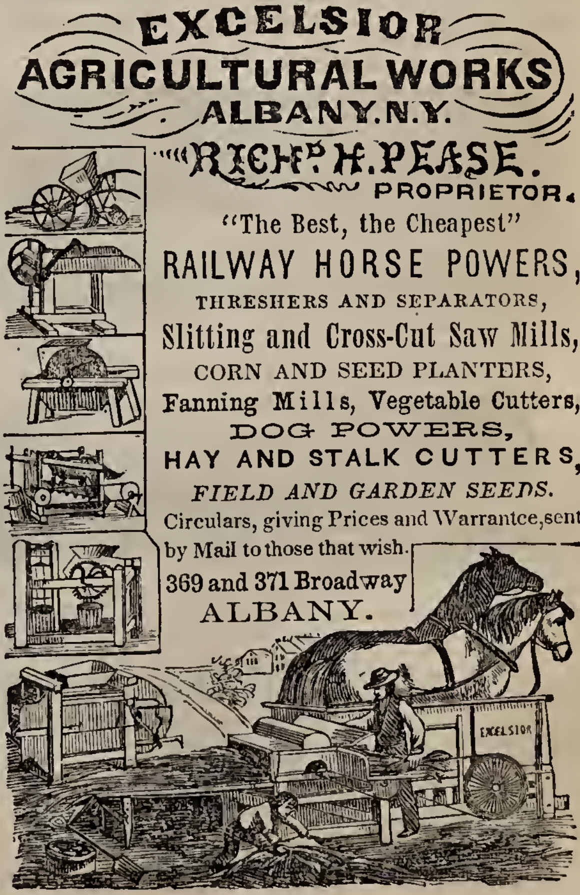
Jan 31—wtf—May 22—mtf A. N. WOOD & CO.

DEVON CATTLE.

THE subscriber's second ANNUAL CATALOGUE of DEVON CATTLE, bred entirely from stock of his own importation. is now ready. It contains full pedigrees of all the animals in his herd; of which he offers a number of very superior bulls and heifers for sale.

Also ESSEX PIGS, bred from the best importations.

Address, C. S. WAINWRIGHT,
April 1—w&m6ms. Rhinebeck, Duchess Co., N Y.



EXCELSIOR AGRICULTURAL WORKS

ALBANY. N.Y.

RICHᴰ. H. PEASE.
PROPRIETOR.

"The Best, the Cheapest"

RAILWAY HORSE POWERS,
THRESHERS AND SEPARATORS,
Slitting and Cross-Cut Saw Mills,
CORN AND SEED PLANTERS,
Fanning Mills, Vegetable Cutters,
DOG POWERS,
HAY AND STALK CUTTERS,
FIELD AND GARDEN SEEDS.

Circulars, giving Prices and Warrantee, sent by Mail to those that wish.

369 and 371 Broadway
ALBANY.

UNITED STATES AGRICULTURAL
Warehouse and Seed Store.

MAYHER & CO,, Nos. 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,
FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz: —

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle **D** and **F** Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers. for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers.

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf

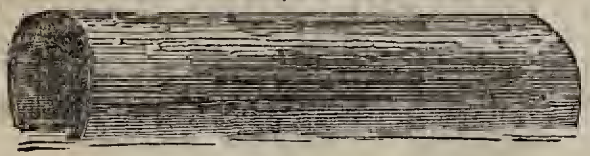
---

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

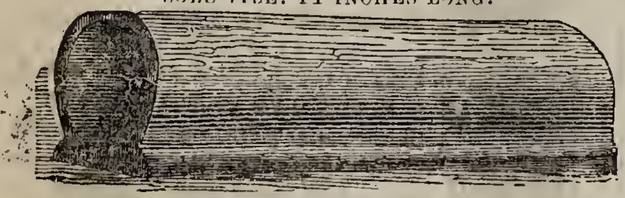
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

2½	inches	calibre,	$12	per 1000
3½	"	"	15	"
4½	"	"	18	"
5½	"	"	40	"
8	"	"	80	"

SOLE TILE. 14 INCHES LONG.



PIECES.

2	inches	calibre,	$12	per 1000
3	"	"	18	"
4	"	"	40	"

Also on hand 6 inch calibre Octagon pipe, $20 per 100, and 8 inch calibre Round pipe, $30 per 100. for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Late BABCOCK & VAN VECHTEN,
May 8—w&m3ms. Albany, N. Y.

RICH'D H, PEASE, Agent,
Excelsior Agricultural Works, Warehouse and Seed Store,
359 & 371 Broadway, Albany, N. Y.

ATKINS' AUTOMATON:
OR,
SELF-RAKING REAPER AND MOWER.

BEST MACHINE IN USE.

1 (the first) used in 1852.
40 used successfully in 1853.
300 in twenty different States in 1854.
1200 in all parts of the Union in 1855.
3000 building for the harvest of 1856.

THERE ARE SIX GOOD REASONS FOR THIS unparalleled increase and great popularity: 1st. It is strong and reliable, and easily managed. 2d. It saves the hard labor of raking. 3d. It saves at least another hand in binding. 4th. It saves shattering by the careful handling in raking; besides the straw being laid straight, it is well secured in the sheaf, and does not drop in the after handling, and the heads are not exposed in the stack, so that the GRAIN saving even exceeds the LABOR saving. 5th. It is a good Mower, being one of the best convertible machines in use. 6th. It has a knife that does not choke.

Its other excellencies, too numerous to mention here, are fairly given in the circulars. Its intrinsic worth is also attested by the award (mostly in only 3 years) of

OVER 70 FIRST PREMIUMS!

PRICE.—REAPER AND MOWER, $200.—$75 on its receipt, $75 first September, and $50 first December. Price of SELF-RAKING REAPER only $175. Considerable saving in freight to those at a distance who order prior to 1st March; also liberal discounts for advance payment.

To procure a machine, order immediately. Though so little known the past season, and none ready for delivery till 1st of May, yet not two-thirds of the customers could be supplied. The reputation of the Machine is now widely established, so that THREE THOUSAND will not as nearly supply the demand us twelve hundred did last year, and we shall also be selling four months earlier.

☞ Order early, if you would not be disappointed.

PAMPHEETS giving IMPARTIALLY the OPINIONS OF FARMERS, together with orders, notes, &c., mailed to applicants. and prepaid.

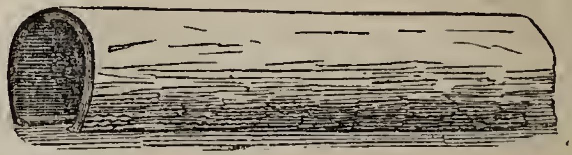
☞ Write to us at CHICAGO, (Ill.,) DAYTON, (Ohio,) or BALTIMORE, (Md.,) which ever is nearest you.

J. S. WRIGHT & CO.
"Prairie Farmer" Works, Chicago, March 6—w4tm4t

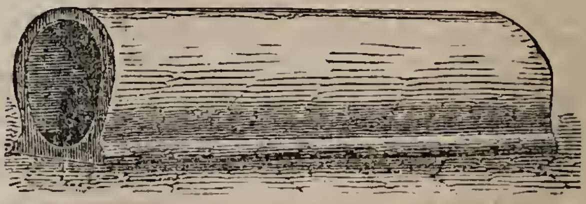
Artcher & Co.'s Tile Works,

Near the Orphan Asylum, on the Western Plank Road—Office 63 Quay-street, near the Steam-boat Landing.

THE subscribers are prepared to furnish Drain Tile of all sizes and patterns at reduced prices, and warranted as good as any made in America—their length being 14 inches —(1000 will lay 76 rods of drain.) On a large order a liberal discount will be made.



Horse Shoe Tile—4½ inch calibre. $18 per 1000—3½ inch, $15 per 1000—2½ inch, $12 per thousand.



Sole Tile—4 inch calibre, $40 per 1000—3, $18 per 1000—2, $12 per 1000.

Also on hand Horse-Shoe Tile, suitable for small streams and out-houses, at $8 per 100. Also large Tile, suitable for cellars, cisterns, sinks, &c., at $4 and $6 per hundred. Tile delivered at the docks and railroads free of cartage. Specimens can be seen at Clark & Gifford's. 39 Quay-st. Orders thankfully received and promptly attended to. Address

J. ARTCHER & CO., Albany, N. Y.

DISSOLUTION.—The copartnership heretofore existing under the firm of Appleton & Alderson, is this day dissolved by mutual consent. Feb. 1st, 1856.

As usual, orders for Tile will be thankfully received by

GEO. ALDERSON, Agent,
May 8—w&mtf Albany.

Farm Lands for Sale.

THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL OVER

Two Million of Acres of Farming Lands,

In Tracts of 40 *Acres and upwards, on Long Credits and at Low Rates of Interest.*

THESE lands were granted by the Government, to aid in the construction of this Railroad, and include some of the richest and most fertile Prairies in the State, interspersed here and there with magnificent groves of oak and other timber. The Road extends from Chicago, on the North-East, to Cairo at the South and from thence to Galena and Dunleith, in the North-west extreme of the State, and as all the lands lie within fifteen miles on each side of this Road, ready and cheap means are afforded by it for transporting the products of the lands to any of those points and from thence to Eastern and Southern markets. Moreover, the rapid growth of flourishing towns and villages along the line, and the great increase in population by immigration, etc., afford a substantial and growing home-demand for farm produce.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc.

Economy in cultivating and great productiveness are the well known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly breken sod, usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very *large profits*. A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to 2.50 per acre. By judicious management, the land may be plowed and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market.

Bituminous coat is mined at several points along the Road, and is a cheap and desirable fuel. It can be delivered at several points along the Road at $1.50 to $4.00 per ton; Wood can be had at the same rates per cord.

Those who think of settling in Iowa or Minnesota, should bear in mind, that lands there, of any value, along the water courses and for many miles inland, have been disposed of;—that for those located in the interior, there are no conveniences for transporting the produce to market, Railroads not having been introduced there. That to send the produce of these lands, one or two hundred miles by wagon to market, would cost much more than the expense of cultivating them; and hence, Government lands thus situated, at $1,25 per acre, are not so good investments as the land of this company at the prices fixed.

The same remarks hold good in relation to the lands in Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons, or interrupted water communications, increases the expenses of tranportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in cost of transportation, especially in view of the facilities furnished by this Road, and others with which it connects, the operations of which are not interrupted by the low water of summer, or the frost of winter.

PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for Deeds may be made during the year 1856, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract.

Interest will be charged at only 3 per cent. per an.

As a security to the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that at least one tenth of the land purchased shall yearly be brought under cultivation.

Twenty per cent. from the credit price will be deducted for cash. The company's construction bonds will be received as cash.

They will be 12 feet by 20 feet, divided into one living and three bed-rooms, and will cost complete set up on ground chosen anywhere along the Road, $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

Special arrangements with dealers can be made to supply those purchasing the Company's lands with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices*.

Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.

It is believed that the price, long credit, and low rate of interest, charged for these lands, will enable a man with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to JOHN WILSON,

Land Commissioner of the Illinois Central R. R. Co.
Office in the New *Stone Passenger Depot*, foot of South Water Street, Chicago, Ill. May 1—m6t

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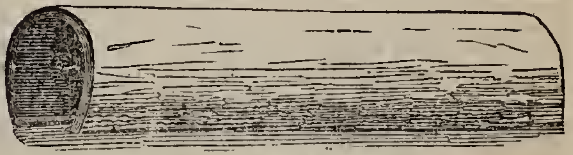
Appleton's Drain Tile Works,

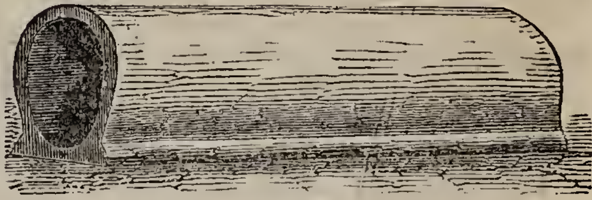
Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

HORSE SHOE TILE 14 INCHES LONG.



PIECES.	
4½ inches calibre,	$18 per 1000
3½ inches calibre,	15 per 1000
2½ inches calibre,	12 per 1000

SOLE TILE, 14 INCHES LONG.



PIECES.	
4 inches calibre, at	$40 per 1000
3 inches calibre, at	18 per 1000
2 inches calibre, at	12 per 1000

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchant's, 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that tile from his establishment obtained the first prizes at the Albany County, and N. Y. Stat Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to. Address JOHN APPLETON,
195 Washington-st., Albany, N. Y.
May 1—weow8t—m3m

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Fairbanks' Hay Scales.

MORE than *four thousand* of these convenient and durable Scales have been put up by us in different parts of the United States and the British Provinces.

Several *Gold and Silver Medals* have been awarded to us by the various Agricultural Societies throughout the country, for

THE BEST HAY AND CATTLE SCALES;

and we have certificates without number from officers of city and village corporations, manufacturing establishments, and private individuals, who have our scales in use, testifying to their superior excellence.

To be in season for the coming hay crop, orders must be given early.

Scales set in any part of the United States or the Canadas by experienced workmen. Address by mail or otherwise,

FAIRBANKS & CO.,
June 5—w4tm2t No. 186 Broadway, New-York.

A. LONGETT,

34 CLIFF-STREET, NEW-YORK.

PRICES OF FERTILIZERS FOR SUMMER 1856.

PERUVIAN GUANO, No. 1, with Government brand and weight on each bag,..........per ton of 2,000 lbs., $53.00
COLUMBIAN GUANO,.. . ... " ...... " 36 to 40.00
SUPERPHOSPHATE OF LIME, ... " 45.00
BONE DUST, Ground,..............per bbl.,...... 2.50
" Turnings,.............. " ....2.37 to 2.50
" Sawings,.............. " 3.00
" Mixed fine ground,..... " ....2.75 to 3.00
PLASTER OF PARIS,.............. " ....1.00 to 1.25

There is an inferior grade of Peruvian guano which has the Government Brand on the bags—can be detected by the figure 2 under the weight mark.

A. LONGETT,
34 Cliff-St , Corner of Fulton,
June 12—w6tm2t New-York.

THE EXCELSIOR CIDER-MILL,

"*KRAUSER'S PATENT.*"

THE subscriber having tested this mill personally, during the past *Fall* and *Winter*, and ascertained from actual experience, where it was imperfect, has made several important improvements in the pressing arrangements, and now offers it to the public as the ONLY *Cider-Mill* that will perform the operation of grinding and pressing apples perfectly. Two good men can grind and press out from 6 to 8 barrels of cider in one day. The making of cider is only one of the advantages of this mill. Cheese and lard can be pressed with it, and we have sold several to people who say they have pressed their clothes dry instead of wringing them, which wears them out much quicker than the actual wear of the clothes, while the pressing does not wear them at all The price of these machines is $45 each, with a full warrantee. All orders and communications promptly answered by addressing

RICH'D H. PEASE,
May 29—w4tm1t Albany, N. Y.

MANNY'S

COMBINED REAPER & MOWER

AND

Forbush's Combined Reaper and Mower,

For sale by GRIFFING, BROTHER & Co.,
May 29—w&m3m 60 Courtland-st., New-York City.

Willis' Patent Stump-Puller.

THIS is a Machine of vast power; and for extracting stumps, large or small, it has no equal. It will take out from 12 to 20 an hour, without difficulty, and with but a

SINGLE YOKE OF OXEN.

It is also the best Machine yet invented for

MOVING BUILDINGS.

All progressive men who desire to bring their waste lands at once into market, or a state of fertility, are invited to address or call on the patentee, WM. W. WILLIS, Orange, Mass., or John Raynolds, at C. M. Saxton & Co.'s, No. 140 Fulton-st., N. Y., where a working model may be seen, and other information obtained. June 12—w&mtf

---

RURAL PUBLICATIONS.

THE COUNTRY GENTLEMAN—THE CULTIVATOR, AND THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS—*Published at Albany, N. Y., by* LUTHER TUCKER & SON.

THE COUNTRY GENTLEMAN is a beautifully illustrated weekly of 16 pages quarto, with special Departments for *The Farm*, *The Grazier*, *The Dairy*, *The Fruit Garden and Orchard*, *The Florist*, *The Kitchen Garden*, *The Poultry Yard*, *The Housewife*, *The Fireside*, *&c.* "This is, without question, the BEST Agricultural Paper in the United States."—Hon. JOHN WENTWORTH, M. C. of Illinois. Price $2 a year.

THE CULTIVATOR, monthly, 32 pages octavo—well-known for twenty years, as the best monthly agricultural journal in this country—price 50 cents per year.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS. The two Nos. issued for 1855 and 1856, contain more than 250 engravings of buildings, animas, trees, fruits, &c., &c. Price 25 cents each—*sent post paid by mail.*

FORBES.
VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. IV. ALBANY, AUGUST, 1856. No. VIII.

About a Kentucky Exhibition.

Taking steamboat at Cincinnati, June 7th, we reached Louisville the next morning—in time, as it fortunately happened, to be present during a portion of the first spring show of horses, by the "Southwestern Agricultural and Mechanical Asssociation." This was to open Tuesday, and was intended, as we understood, partly to inaugurate the first of a series of monthly stock sales on the grounds of the Society, and partly as an experiment to test the expediency of similar exhibitions in future years. It attracted fine stock in considerable numbers from different portions of the state, and must have been regarded, so far as we were able to judge from the first and a part of the second day, successful even beyond the anticipations of its friends.

The grounds of the Association are near the city, pleasantly located, and worthy a visit for their own sake alone, to agricultural men from the East. The manner in which the constructions are arranged, and the whole way of conducting a "Fair," differ so entirely from those to which we of the New-England, Middle, and North Western States, are accustomed at home, that most of our readers may be interested in a brief description, though often given before. Such of our Societies at least, as have permanently located grounds, may perhaps obtain from it some useful hints.

About forty acres are enclosed—partially with extensive lines of stalls for the use of animals to be shown. A great convenience is added in the large and commodious entrance building, containing ticket offices, rooms where ladies or others can sit while tickets are being procured, &c. Though not quite adequate for the large crowds attending the fall shows, other similar erections may be put up at no great cost to overcome this difficulty, while the comfort of such a *depot* for the temporary use and protection of visitors from the weather, struck us as a feature of no small merit. The gates at which tickets are surrendered, are a little way within. On the further part of the grounds, is a large two story brick house, entirely for the use of ladies. We did not enter it, but judging from its exterior it ought to contain every imaginable requisite that can be called for by those who are spending the whole day away from home, in many cases accompanied by children and servants. In these respects as in others, the grounds of the South Western Association, we are told, are but a type of all in the same state, and manifest a regard for the enjoyment and the necessities of visitors, far too generally neglected among us. Officers in common with others, dine with their families and invited guests in pic-nic fashion, from tables spread under the trees—those remaining for the day apparently calculating to bring their meals with them, instead of depending upon refreshment stands for purchased and often ill-prepared and unhealthy food.

The only other erection, we believe, was that grand center of the hopes and aims of exhibitors, and of the decisions of judges and spectators—the amphitheater. This encloses a ring of two hundred feet diameter, and will comfortably seat perhaps 7,500 visitors. The office of the president, secretary and directors, occupies a little nook near the entrance gate, accessible from without by windows for the transaction of business with exhibitors and others. In the center, the judges' stand is surmounted by an awning-sheltered gallery for musicians, and contains, visible to all, a glass case of plate—silver pitchers, cups, &c., which are to be the rewards of successful competition. Reward in addition is there, too, from the galleries around—the huzzas of the men and boys, and the bouquets of the ladies, are the abundant offerings of enthusiasm for favorite animals—the latter perhaps not unmingled with favoritism for good looking and gallant human competitors. The plaudits of the crowd, however, and the judges' awards, generally go together—though defeated candidates are now and then consoled by welcome tokens of favor from bright eyes and flower-laden hands. In the intervals of employment for the eye, or while the decisive scrutiny is going on in the center, music amuses the ear. The premiums are proclaimed as soon as decided, by a marshal or herald, and the premium animals or articles decked with blue for first and red for second prizes. Everything shown, that is not too bulky or inconveniently moved, is brought here for examination—larger implements and machinery only, being scattered over the grounds without. Each day has its published programme, and those who would see all, must begin at the beginning and remain till the end. If they may then obtain a more thorough and intelligent acquaintance with everything that has been brought before them, than in our way of conducting a show, they lose the opportunity of gaining a superficial idea of the whole in one visit of a few hours or a single day. But it is far less a task to sit thus comfortably in the shade, than to be constantly on foot in sun or rain. For stock, the amphitheater is certainly a great way in advance of our rope-inclosed rings; although for the fruits, the flowers, the dairy products, domestic manufactures, &c., &c., that we exhibit, our mode of separate buildings is undoubtedly more commodious and easy of access for spectators. The two might be perhaps combined with advantage.

We have been a long time in surveying the grounds—let us glance at a programme of the exhibition, which is, as we have said, confined entirely to horses. The first day is devoted to Saddle, Matched and Draft Horses; the second to Blood Horses, respectively, with and without Pedigree; the third to Harness, Buggy and Riding Horses,—each class including rings for different ages of Stallions, Mares, and Geldings, and several of them for Mares accompanied by their Colts. A fourth day was devoted to the auction sale of such stock as should be offered, and notice was given that such sales would be hereafter held on the third Friday of every month.

In regard to age, the rule of the races was adopted, counting from January instead of from the birth of the horse. The pedigrees of thorough breds were required to be handed in for committee examination ten days before the show began. From the programme we were led to expect a grand cavalcade of all the horses entered, every morning before the regular exhibition commenced, but we believe this was not carried out. One feature, which must have been very fine, was introduced for the morning of Friday:—three rings were made, respectively for all the Stallions, Mares and Geldings of every age, *which had taken premiums during the preceding days*, a sweepstakes prize of $20 being offered in each. This would have given us a more complete view of the number of superior animals shown, than we were able to obtain during our stay—although we should not omit to express the opinion formed from what we did see, that as a whole the exhibition was one of the best ever held in this country, and reflected the greatest credit both upon its managers and upon the stock of the state. Our expectations were certainly excelled, and though there was not much competition in a few of the rings, particularly of thorough-breds, others were very full and close, as for example during the time we were present in Matched, Carriage and Buggy Horses and in Aged Draft Stallions and Geldings, while the judges particularly directed the marshal to announce that the show of blooded yearling colts without pedigree, was superior to any ever before held in the State or the Union, and that the display of aged buggy horses in harness excelled all they had previously seen for speed and beauty. The ring of 14 ponies ridden by boys, was also the theme of great admiration. We much regret that absence prevented our seeing either of the last mentioned.

We should be glad to publish the whole list of premiums awarded, but we have not room to accommodate it—for want of which we must confine ourselves to mentioning one or two of the exhibitors and their animals. The matched horses, bays, of Samuel Castleman, and the sorrels of J. K. Lincoln, both of Fayette, were remarkably fine, as were also several other pairs of carriage horses shown by different gentlemen. The matched buggy horses, sorrel, belonging to John C. Hull, of Louisville, instantly attracted the admiration of the spectators, and received the first prize in a ring comprising half-a-dozen additional and strong competitors. In a ring of nine draft stallions, over four years of age, the premium was taken by the chestnut sorrel of D. M. Kelly, of Louisville. Of four, between three and four years old, R. M. Parke & Co., of Hardin Co., took the first, and E. M. Blackburn, of Midway, the second—the latter gentleman also carrying off prizes on a fine three-year-old, and another yearling blood mare. Among 12 entries of aged geldings—draft—a beautiful display—the first was awarded to the black horse of Noah Ferguson, of Fayette, the second to the bay of Jacob Anthony of Indiana. Old "Wagner," shown among the blood stallions on the second day, was greeted with great enthusiasm. Gibson Mallory, Esq., of Louisville, from whom we should acknowledge much polite attention, was the taker of no less than four prizes for blood mares in different classes. A colt accompanying a blood mare, shown by D. Brennon, of Henry, was a splendid little fellow, and the recipient of unbounded and well deserved applause as well as a blue ribbon. Our own observation ends here. The sweepstakes prizes of the last day were taken:—for Stallions, 12 entries, by Solomon Lowe, of Fayette Co.; for Geldings, 14 entries, by Logan Railey, of Versailles, who was a large exhibitor; for Mares, 18 entries, by H. C. Duncan, of Nelson Co.

The officers of the Society,—Col. GEORGE HANCOCK, of Louisville, the President; Messrs. Strong, Miller and Mallory, Vice-Presidents; the Messrs. Brent respectively Treasurer and Secretary, Mr. Ormsby, Corresponding Secretary, and the Directing Committee, as well as the Agricultural public at large, should be congratulated on the gratifying attendance of spectators at the exhibition, the general competition it awakened, the efficient and excellent mode in which it was carried out, and the prospect of still greater success on similar occasions hereafter. If we have omitted to mention our indebtedness to Col. HANCOCK and many others, for their kind welcome and constant assistance, it is because hospitable generosity is almost too well known an ingredient of Kentucky nature to require particular remark.

We close with a brief paragraph in relation to the sales with which the last day was concluded. We understand that no very superior horses were offered, and that the prices realized,—nearly $10,000 for 45 single animals and 2 pairs,—being an average of about $230—were considered excellent. The highest price was $1,460 for a Canadian Stallion.

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Remedy for Bugs on Vines.

MESSRS. TUCKER & SON—I have seen in the Co. Gentleman, at different times, various modes, plans and suggestions for the extermination of the striped bugs from Cucumber Vines, and others similarly affected by them. But after trying several of those means, such as chicken-coops among the hills, soot and ashes, scotch snuff, &c., I find no plan so effective as frequent visits to the vine patches, and there kill all on the vines, and then make diligent search in and about the hills for more, and when found crush the wretches with the fingers. After having made a few such efforts, and disturbed their lurking places, those that may escape destruction will leave for parts unknown. To some this mode of destroying bugs may seem revolting, but water can wash off every impurity.

In regard to the egg within an egg, I brought to notice in January, I will acknowledge that freak of nature surpassed, and am inclined to think many more curious things could be told about eggs and chickens. E. KALB. *Rushville, O.*

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Rapid Growth.

A row of young Scotch pines 2 or 3 ft. high were lately observed to be making a rapid growth in their leading shoots. Measurement was made, and one of the thriftiest was found to have grown *an inch and a half* in 30 hours. This fine evergreen may be classed among those for planting new places, where quick results are desirable.

"Kentucky Sheep"—and Cattle.

From Frankfort it is four or five miles to the farm and residence of **Robert W. Scott**, Esq. There we saw first the famous grazing parks of Kentucky. Partially shaded by trees, scattered here and there, singly or in groves, underbrush of every sort thoroughly cleared away, and weeds uprooted or constantly cut down, the blue grass gradually usurps the place of other kinds, and soon forms a sod as smooth and compact as the finest lawn. The pasturage it yields is noted as perhaps superior to that of any other region for feeding purposes. The effect to the eye, continually varying with the rolling surface, and heightened by the light and shade among the trees, would be a study for either landscape gardener or painter. There is a vast number of these blue grass pastures extending for a few miles up from the Kentucky river at Frankfort, through the counties of Woodford, Fayette, Bourbon, and others, and to some extent on the western side of the river, in Mercer, Washington, &c. They are in a state of more or less improvement, according to the circumstances or pleasure of owners, from almost primitive wildness to entire exclusion of every weed below or dying bough above. The majority we have seen, including Mr. Scott's, are highly improved, though the many duties of economical farming have precluded that almost absolute perfection obtained by the few with unlimited labor at their constant disposal.

Mr. **Scott's** thoroughbred cattle number about 30, mostly descendants of the '17 stock as it is called—the early importations of Col. **Sanders** and others—with occasionally a cross by bulls more recently introduced. They are thrifty, and many of them superior animals, retaining among the characteristics of their ancestors, good milking qualities, and a fineness of horn now-a-days frequently overlooked by breeders as immaterial. The principal breeding bull at present is "Brutus," from the herd of B. J. Clay, Esq. "Coquette," a handsome heifer, is to be illustrated in the next volume of the Am. Herd Book. "Lily of the Valley," "Haidee," and "Ruby 2nd," are fine cows; "Helen 2nd" is an example of unusual size; "Snow Ball," like another one we subsequently saw,—we think at Mr. Alexander's—never had a calf, but in both instances, the bag was distended, and each is now giving a small quantity of milk. We should add that Mr. S. has been engaged as a breeder for about twenty years, with the constant end in view of building up a herd suited for the ordinary wants and adapted to the climate of the State.

With a similar purpose he has combined the blood of different breeds, and at length produced the cross distinguished as "Kentucky Sheep." The opinion that neither of the foreign breeds by itself is quite suited to the farmer's wants in this State, we have heard very generally expressed. Many breeders prefer to keep only distinct varieties however, in order that purchasers may cross to their own taste; but Mr. S. believes that his long experience and knowledge of the qualities required, have enabled him to perform this part himself more successfully than could be done by raw hands with few or no advantages for the task at their command. He began about fifteen years ago, by putting a large and fine Saxony ram to the best of the native ewes, in order to obtain more delicacy in the mutton and thickness and fineness of fleece. Ewe lambs thus produced were crossed with an imported Bakewell ram, large and full in carcass and long and heavy in fleece. To secure something of the active and thrifty South-Down disposition and the superior qualities of its mutton, a ram of that breed was next introduced, effecting, in regard to the fleece, a greater thickness of the staple and diminished lenth. Cotswolds and Oxfordshire blood are mingled in subsequent generations. The best of the males now produced are used and sold for breeding, and inferior specimens fed as wethers. On one occasion sixteen of these, not completely fatted, were sold for $15 each for their mutton. Mr. Scott is sanguine that they will prove themselves superior in this particular, while he thinks them more profitable in respect to fleece than any other variety at present rates here—no distinction in price being made between fine wool and coarse. The number of sheep he now keeps, is in the neighborhood of one hundred and fifty, mostly of the "Kentucky" cross.

The farm is of about nine hundred acres, of which perhaps one hundred and twenty-five are in Indian corn, thirty in rye, sixty each in hemp and oats, and eighty in wheat. The remainder is mostly pasturage. A field of orchard grass was very fine. Of the hemp, that earliest planted was the most promising, owing to drouth in the latter part of spring. Mr. S. had in progress a considerable crop of "Chinese hemp," from the seed first imported into this country, two or three years ago, by **William Vance**, of Woodford, from Paris, whither it was brought from China. It is said to have yielded 2,000 lbs. per acre, while it is seldom that the ordinary hemp exceeds 1,000, and the average crop is perhaps not over five or six hundred. The Chinese hemp is considered a great acquisition, and has been very generally disseminated during the short time since it was introduced.

Mr. S. had been troubled in common with many others the present season, with the failure of his corn to grow. He was of the opinion, that what had succeeded best was that which had been left standing in the shucks till thoroughly hardened and in all respects mature. It is a hint which may be of value in avoiding a recurrence of the difficulty. This year multitudes of fields have had to be planted a second time.

The hogs kept by Mr. Scott are a cross between the Irish Grazier and Woburn varieties, and number nearly two hundred. A pair of imported Maltese Goats are worthy of note. A pond on the place is a favorite winter haunt for Wild Geese, and some of them had become domesticated, and were mingling with their Hong Kong and Bremen companions, and raising their own broods, apparently in entire satisfaction with their new way of life.

From Mr. Scott's we passed through Versailles to Sumner's Forest, the residence of our friend **Joseph A. Humphreys**, Esq., to whom we are indebted for the opportunity of being present, Thursday, at the sale of of Dr. **John B. Payne**, near Lexington. This included a number of well-bred horses, and upwards of 40 Short-Horn cows, heifers, and bulls, of various degrees of merit. The sale was throughout one of the most successful, we were told, that Dr. P. has ever had. The attendance was large, perhaps upwards of three hundred. The horses sold especially well, averaging we think, about $220 each. Six young bull calves brought in the aggregate $599. The other stock ranged from $31 up to $250. We were sorry not to have received a memorandum of details more in particular, which Col. **Delph** had kindly promised to furnish. Under his persuasive tongue most of the fine stock of several counties are wont to change owners; and the amount of property of this kind for which he secures purchasers from year to year, is of course very great. He appears to possess a happy faculty of drawing out competition and running up bids.

With Mr. Humphreys, on Friday, we drove over to Waverly, as the place of his father, D. C. **Humphreys**, Esq., has been called for many years, and the next morning, in company with several gentlemen, proceeded to Woodburn Farm, to see the fine and extensive herd of R. A. **Alexander**, Esq., whose position as the owner of large estates both here and in Scotland, has enabled him to select and import specimens of nearly if not quite all the breeds most highly esteemed by breeders, both at home and abroad. An account of this visit will have to be deferred until another week.

Woodburn Farm and its Stock.

Robert A. Alexander, Esq., at whose residence we closed our last letter, is very extensively engaged in improvements of various kinds on his lands in Woodford Co., Ky. They include a number of farms, about twenty-seven hundred acres in all, of as good land as this garden region of the State can anywhere boast. Wherever they are bounded by public roads or lanes, he designs enclosing them with stone wall, of which he has already a considerable quantity laid up, and that in the most substantial and durable manner. Although large sums have been already expended in this and other ways, his projects as to what the estate shall become in future years, are yet scarcely entered upon, so wide is the field they have to cover. Constantly increasing its extent, he has laid out for himself a task of no little magnitude in the improvement of the whole; but one which, notwithstanding numerous engagements and heavy expenditures of other kinds, he has ample means and taste for completing, in a manner perhaps superior to anything we have as yet in this country.

We spent a portion of two days in viewing Mr. A.'s herd at the homestead farm, and found even this time inadequate to enable us to do justice to its merits or extent in the following notes. The part of Kentucky in which he is situated, comprising the whole counties of Woodford, Fayette, and Bourbon, and portions of those adjoining, is now, we presume, entitled to rank as the head-quarters of fine stock for the Union, and very likely for the world; by which we mean that there is probably no contiguous territory of equal extent elsewhere that contains so many good and famous blooded animals, whether cattle or horses, as this. It is the laudable ambition of Mr. Alexander to make his herd the best in his own locality, satisfied that if there unequalled, he can safely challenge "the rest of mankind." It is but fair to add that there are one or two other earnest aspirants for this post in the same vicinity. The number of smaller herds of superior quality is also very great, and the honors at the autumn fairs are by no means to be obtained without close and eager competition.

At the time of our visit, Mr. A.'s stock comprised one hundred and forty-three head of thorough-bred cows and heifers, and about forty of bulls and bull calves. Of the females, no less than fifty-nine are imported. The first importation was made in 1853, just before that of the Northern Kentucky Importing Company. The object in view was to obtain the best animals to be had of different strains of blood, and five bulls and twenty-one heifers were accordingly selected—with subsequent importations, including such celebrated names for breeders, as those of Messrs. Bell, Fawkes, Townley, Tanqueray, Booth, Bates, and others. His selections of that year having been made before those of the Importing Co., and from much the same sources, he nevertheless chose to attend their sale in order to possess himself of some of the choicest fruits of their judgment as well as his own. Here he purchased "Orontes 2d," for $4,525, "Mazurka," for $3,050, "Maid of Melrose," for $2,200, and "Equity," for $1,000. In 1854, he imported two bulls and twelve females, and in 1855, about twenty-five head, all cows or heifers. The remainder of the herd are of his own breeding or purchased from Kentucky breeders of the highest standing, and including a few animals whose pedigrees run back to the importation of 1817.

His breeding bulls are ten,—of which two were let at his last fall's sale—"Lord John" for $700, and "Orontes 2d" for $655; and two more are standing to cows at his stables, each for $50 per calf—"2d Duke of Athol" and "Sirius." They are both excellent animals and apparently general favorites—the latter having taken eight premiums in the year 1855. The others, whose services he confines entirely to his own herd, include "Grand Master," a very superior bull, of Mr. Fawkes' breeding, and "Fantichini," by Lord Ducie's "Beaufort;" "El Hakim," by "Grand Duke," (now owned, as our readers will remember, by Mr. Thorne, of Dutchess Co.,) out of Mr. Booth's cow "Fame," and "Duke of Airdrie," by "Duke of Glo'ster," (now belonging to Messrs. Morris and Becar,) out of "Dutchess of Athol." Of the young bulls we saw, many were very fine, and we should be glad to speak of them all more in detail.

A commodious spring house nearly completed, attracts our attention as we go to the stables. It is built of stone, and as solidly as possible—contains milk, churning and store rooms, and one for a boiler for steaming purposes below, and above apartments for a man and his wife in charge. The cow-house is not yet completed. It is also of stone, and substantial enough to outlast many generations of its inhabitants. In the form of a T, the roof projects over the walls, and forms a wide covered walk around the whole. The interior arrangement is very simple—the stalls being in two rows, with the heads of the occupants toward a feeding path between—each calculated for two. The floor is of earth, except a planking four feet wide for their hind feet to rest upon. The long range represented by the top of the letter, is designed to contain the cows of the breeding herd, and the remainder is allotted to such animals as are for sale—a small portion at the junction being reserved for apparatus used in preparing feed. Our readers would be much interested in a fuller description, with the dimensions, plans, &c., which we think we can promise them from Mr. Alexander at some future day.

Among Mr. A.'s cows are several that would rival the very best in our finest eastern herds, and many that would surpass all but the finest, both here and at the west. Among these are the Duchess of Athol, the Mazurkas, 1st and 2d, Frances Fairfax, Vellum, Forget-me-not, Duchess of Airdrie, Fenella, and Prune, which last has a beautiful calf sired by 2d Grand Duke, before his importation by Sam'l Thorne of this state. These, and many others of beautiful form and general excellence, we saw grazing in the fine pastures in which nearly the whole of Mr. Alexander's lands are lying. Some of the heifers were also very handsome and promising, for example, 2d Duchess of Airdrie, and Mazurka's twins.

We must not forget to mention among Mr. Alexander's stock, his Ayrshires and Jerseys, although popular opinion at the west seems scarcely to rate either these breeds or the Devons, much if at all above the common "scrub" of the country—a small, bony, black-haired, blue-nosed animal, which nevertheless, from long breeding, for its milk alone, (being utterly hopeless for other purposes,) has come to possess here and there, a soft and richly colored skin, and fine bag, that some of its betters might envy. Both the Ayrshires and Jerseys we saw, were really very fine specimens of their breeds—indeed, would not have been imported unless sufficiently superior amply to justify the trouble and expense incurred. They can hardly fail to recommend themselves in time, to favorable notice in their own peculiar spheres. But the Kentuckian is devoted with equal enthusiasm to his horses and Short-Horns, and no rival can hope to displace the latter in in his affections.

Which reminds us that the equine moiety of the Woodburn stock has not yet been touched upon. It includes several choice animals, and we understood that one purpose of Mr. Alexander's present visit to Europe, (he sailed, we believe, on the 5th inst.,) is to procure other valuable blood horses. A sister of the famous

Lexington, chestnut, sired by the celebrated Wagner, a number of Glenco fillies, and others, are worthy of note. A Glenco horse from a Medoc mare was tried on the course while we were present, and ran his mile, with little or no previous training, in 1:54.

We were indebted to Mr. Alexander for the opportunity of seeing at the stables of Mr. FRANCIS HARPER, *Glenco* himself, now 25 years old, and bearing his age well except with respect to sight, having been totally blind for about three years. Also *Fashion*, owned by Messrs. Reber and Kutz, of Ohio, with *Monarch's* colt by her side. And last, *Lexington*,—whose four mile heat in 7:19¾, is the fastest time on record,—and a fine colt of his out of a Glenco mare. *Lexington* is not equal to his fame in his appearance; one would scarcely select him out of a number of ordinarily handsome well-bred horses as the one to have challenged the world successfully.

Out-Door Cellars.

MESSRS. EDS.—In yours of 28th of Feb., H. of North Lawrence, N. Y., makes inquiry about the construction of an out-door cellar, "on level, sandy land." Three years ago last fall, I made an out-door cellar for storing roots, cabbages, potatoes, &c. It is about fifteen rods from my house, and although not on "level sandy land," I am so pleased with it, I will give a short account of its construction, as it may furnish H., or some other of your readers, with some hints that may be useful, if they wish to make a cellar "entirely separate from other buildings."

The cellar under my house, although drained, is very damp, and warm, too much so for keeping apples, potatoes and roots in the best condition. Some years I have stored large quantities of turnips and other vegetables in it, but every time the door was opened, there would be a rush of the warm air of the cellar, tainted with the smell of turnips, &c., into the rooms of the house, which was anything but pleasant. To remedy or abate this nuisance, I determined to make an out-door cellar. I selected a spot on a moderately sloping hill-side, and excavated the earth from a square of about seventeen feet. Then firmly fitted up joists, as is done for building the walls of lime and cobble-stone houses. Against the outside of the joists, I placed, edgewise, four planks, about one foot wide, and 14 feet long. This left the cellar 14 feet square, inside. Procured a cask of fresh lime, and two or three casks at a tan-yard; this had much hair mixed with it; also a cart-load of sand; with these I made a large quantity of mortar. The stones for the wall were mostly cobble stones collected about my fields. Commenced the wall by spreading a layer of mortar on the bottom of the cellar between the plank and the bank of earth; then laid a tier of stone 12 to 15 inches wide, then filled up the interstices between the stone; then another tier of stone and mortar, much like laying a brick wall. This course was pursued till the walls came even with the top edges of the planks. The plank were then raised their width, and propped up, and another 12 inches of stone and mortar. In this way the walls on three sides were raised to the height of seven feet. On the south side the wall was only about three feet high. From the sill on this wall to the plate, it was boarded on the outside, and lathed and plastered inside. At the south-east corner is a doorway, about three and a half feet high, two and a half wide, with double doors, one opening into the cellar, the other outward; this is not hung by hinges. Sills lay upon the walls, and upon them a good roof; a double floor, covered with a few inches of saw-dust, is the only protection against frost over the cellar. In the winter, enter the loft by a door in the east end; a scuttle or trap-door in chamber admits of going into the cellar any time during winter. Apples and all kinds of vegetables keep in much better condition in this cellar than in that under my house. The cellar was a cheap concern, mostly built by odd jobs, and I should be unwilling to part with it for twice the sum it cost.

Formerly many farmers in this section of the country had out-door cellars. They were usually built upon a side-hill; the sides walled up a sufficient height; the top covered with large hewn timbers, and some two feet or more of soil over the timbers; but such cellars were damp from the rain and snow water dripping down between the timbers; this caused them to rot after a few years, and the cellars became useless.

The chamber over the cellar is a convenient place for storing rakes, scythes, &c., when not in use.

We would just say to your correspondent, H., that he can safely build a cellar on level land, wholly above ground, if he will surround the walls with a mound of earth sufficiently thick to keep out the frost, and put over it a roof similar to the one above described L. BARTLETT. *Warner, N. H.*

Agricultural Statistics of Massachusetts.

We are indebted to C. L. FLINT, Esq., Secretary of the Massachusetts Board of Agriculture, for a very valuable volume, entitled "Statistical Information relating to certain branches of Industry in Massachusetts, for the year ending June 1, 1855. Prepared from official returns, by Francis DeWitt, Secretary of the Commonwealth." These statistics fill a volume of over 460 pages, and were intended to include the entire products of the industry of the State, but owing to a defect in the law, several, and some of them important, branches were entirely omitted. Still the sum total of the industrial products of the State for the year, amount to $295,820,681, being an increase of $171,071,224, since 1845, the time when the last returns were made. Of this amount, the agricultural products were as follows:

Horses and Horned Cattle,	$15,423.521
Sheep and Wool,	464.889
Butter, Cheese and Honey,	2,161,845
Corn, Indian and Broom,	3,061,731
Potatoes,	2,521,906
Wheat,	73.928
Rye	560,201
Barley,	110,158
Oats,	563,729
Onions,	187,446
Turnips,	116,351
Carrots,	148,041
Beets,	484,568
Other Grain and Root crops,	286.202
Millet,	5.509
Apples, Pears, &c.,	1,315.241
Hay,	8,702 317
Hops,	47.461
Tobacco,	57,473
Cranberries,	135,199
Beeswax,	942
Maple Sugar,	52.293
Swine,	581,536
Poultry and Eggs,	52.688
Milk,	755,887
	$37,871,042

Whole number of Sheep, 145,215—Horses, 80,321—Horned Cattle, 261,521—total number of Swine not given.

Of Wheat, there were 2,600 acres, averaging 15 and 10-13ths bushels per acre—Indian Corn, 91,056 acres, average per acre, 28½ bushels—Rye, 42,143 acres, average 12 and 6-14ths bushels per acre—Barley, 4,971½ acres, average 20 bushels per acre—Oats, 37,-

623 acres, 21 and 1-13th bushels per acre—Potatoes, 41,982 acres, average 93 and 5-7ths bushels per acre—Onions, 770 acres, average 313 bushels per acre—Turnips, 2,267 acres, average 231 bushels per acre—Carrots, 1,480 acres, average 427 and 1-7th bushels per acre.

These facts are important, and we hope the other States will follow the example thus set by Massachusetts, and order the collection of the statistics of their industry at least once in ten years. The averago acreable products of the soil, are below what we anticipated, and greatly below, wo presume no one will deny, what they ought to be, and would havo been, had the same skill been brought to bear on its culture that has been used to increase the products of its manufactories.

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Trial of Mowing Machines,

At Morrisville, Madison County, N. Y.

A trial of Mowing Machines was held at Morrisville on the 2d July inst., under the auspices and immediate supervision of the Madison Co. Ag. Society, of which Alpheus Morse, Esq., of Eaton, is President, and L. P. Clark, Esq., of Morrisville, Secretary, occasioning a large and respectable concourse of the tillers of the soil, and others interested in the settlement of the question of the comparative merits of some of the best mowing machines in general use in Central New-York. The present high price and extreme scarcity of agricultural labor, is forcing the farmers to a full conviction that they must use all the labor-saving engines within their reach, of which the mowing and reaping machines are so brilliant and effective examples, fully establishing both at home and abroad, the superiority of the inventive genius of the American mechanics.

Three machines were upon the ground, and entered into competition for the palm of superiority: one manufactured by R. L. Allen, 191 Water-st., New-York, under the care of Daniel Gates, of Chittenango, agent; one of Manny's, with Wood's improvements, under the supervision of E. P. Moore, of Eaton, agent, and one of Ketchum's manufacture, by Howard & Co., Buffalo, Morgan Butler, New Hartford, Oneida co., agent. The programme of points to be decided by the judges, had been previously drawn up and circulated through tho county by the accomplished secretary of the society. They stand as follows, with the awards of the judges annexed:

Points.	*Awards*
1st. Operation of the machines on fair ground, driven at first by the same driver and team, and afterwards by the exhibitors themselves, or their agents.	Allen's.
2d. The lowest and smoothest cut of each machine.	Allen's
3d. Trial on rough, uneven and uncleaned bottom.	The judges had too much charity for the machines to put them there.
4th. Evenness of grass, as left by the machine, for curing.	Ketchum's.
5th. Freedom of knives from clogging when working slow.	Neither Ketchum's nor Allen's, clogged.
6th. Ease of adjusting the cutting bar when the machine is in motion.	Manny's.
7th. Amount of power required to perform a given amount of work.	Comparatively, we think Allen's mach'e requires the least power, having the least side draught.
8th. Liability to injury when coming into contact with stones and other obstructions.	Manny's and Ketchum's least liable.
9th. Best and most convenient arrangement of driver's seat.	Allen's for safety, and Manny's for regulating the dip of the cutting bar.
10th. Durability and simplicity of construction.	Ketchum's.
11th. Facility of transportation from one field to another, and for escaping obstructions in the path.	Allen's for safety, and Manny's for expedition.

The machines were tried in the first place in a field of light grass, belonging to Ira Holt, and after each machine had been drivon around by the same driver, Mr. Torpey of Nelson, and the same team, it was evident that Allen's machine at a moderate gait, cut closer and with less draught than either of the others; but when the machines were placed under the charge of their respective agents, all of them did very good work, and in heavy, standing grass it was difficult to decide which was the best. Ketchum's, however, does not cut clean in light grass, and appears to have a great amount of side draught in heavy grass. It is a very strong, compact machine, capable of being worked in rough, uneven ground, as a young man living in the neighborhood of Morrisville fully proved to the amusement of the spectators, by a gratuitous exhibition of himself and machine in plowing up a host of cradle knolls.

Beforo mowing machines can be advantageously and properly used, farmers must learn to plow and put the soil when seeding down, in a more even manner, pick up all loose stones, and place a stake against all fast rocks above ground. It is not fair to test the strength of the machine or the team, by allowing stones to obstruct the cutting-bar.

After demolishing Mr. Holt's grass, the machines were then moved half a mile, to Henry Runkel's farm, and put into a field of lodged clover with a rough uneven bottom, studded with stones, both fast and loose. The clover was lodged principally in one direction, and after a round or two it was at once evident that none of the machines could do satisfactory work in cutting it in any direction except in going against the inclination of the grass. In the second round Allen's machine was disabled by running foul against a fast rock, breaking out three or four guards; Ketchum's machine caught up a loose stone between the cutter and guard, and so powerful was the resistance that the team was brought up standing without injury to the machine. It is but just to state that the guards of Allen's knife bar, appear to be of soft cast iron, while those of Ketchum's, as all ought to be, are of wrought iron. The driver's seat on Allen's machine appears to be very safe, and all the gearing well guarded, so that no accident can happen without wanton carelessness. Ketchum's seat we consider dangerous; Manny's much less so. It is not in the nature of things for the driver to be on the lookout all the time, and a quick jolt in a dangerous seat, may place his life in jeopardy.

Maydole & Morse of Eaton, Madison Co., have patented an improvement on the Ketchum machino, consisting of a roller and combined lever, by operating which the whole weight of the frame and the cutter bar is thus carried from the ground and thrown upon the roller. This converts the machine into a two wheel carriage, and overcomes the friction of the knife bar on the ground. This we think a very desirable addition to the Ketchum machine, and recommend its use. Allen's machine we consider defective in arrangement for facilitating the elevation of the cutting bar from the ground. Manny's appears to be completely under the control of the driver. We have been thus particular in remarking on the good and bad points of each machine, and sincerely hope their inventors and proprietors will take our criticism in good humor.

A machine for spreading grass out of tho swath, drawn by one horse, was on the ground, and afforded much merriment to the spectators, from its peculiar manner of throwing the grass up into the air. Although this machine is not a new invention, it is deserving the attention of farmers; it does the work well, and spreads the grass seven feet wide, as fast as a horse can walk. It can be used on any ground on which a mowing machine can do good work.

John R. Chapnan, *Ch'n.*
John Babcock,
Jas. H. Dunbar, *Judges.*
Lewis Raynor.

Morrisville, July 2, 1856.

Pulverizing Soil in Drouth.

An interesting paper appeared lately in the Southern Cultivator, from a correspondent, on this subject, containing an account of several accurately conducted experiments, leading to different results from those generally entertained in relation to "stirring the earth." Whenever the weather was dry, stirring was invariably found to increase the evaporation of moisture, and to accelerate the effects of drouth. As there was no guess-work in these trials, but everything was carefully weighed or measured, they deserve the more consideration and attention.

As in all experiments of this sort, an accurate balance is essential, we copy the description of the one used in these experiments, as a guide in the construction of others where precision is required:—

I procured a piece of well seasoned wood, 26 inches long, 2 inches wide and 1 inch thick. Through the middle of it, in the direction of its thickness, I bored a hole large enough to admit the point of a compass-saw. Introducing the saw, I made a slit transversely to the depth of about a half inch. Then, withdrawing it, I introduced it again with the edges reversed, and sawed as before. By this means I had an opening, into which I next drove the blade of a stout carving knife, deprived of its handle, and having a fine straight edge of steel. It was a blade of such thickness that there was no elasticity between the parts of it, on which it was to rest. At equal distances from this blade, towards the end of my beam, I attached appropriate hooks with perfect freedom of motion on fixed points. At right angles to a line passing through these points, I set up an index whose point was vertical to the knife-edge, when the beam was in place and horizontal. My knife-edge was next made to rest on two flat smooth steel surfaces made stationary in a horizontal position. And in a vertical direction, behind the beam when in its place, was secured a piece on which a vertical line was drawn from that point of the steel face on which one end of the knife-blade rested. This balance far exceeded my expectations. I could get no other of equal delicacy on which I could suspend so great a weight as I wished to operate with. When loaded with seven pounds on each end of the beam, it turned with one grain.

With this balance, the following experiments were performed:

Experiment 1*st.*—I suspended from each end of the beam tin buckets 7 inches deep, 5 inches in diameter, and counterpoised them. I then took them to the spot from which I meant to procure the earth. The earth was in just such a state of moisture as we consider favorable for sowing small seeds. I removed about 3 inches depth of earth, and then began to fill the vessels, which I did by taking it all from one hole, and putting it into the buckets—about a half trowelful alternately into each, until they were nearly filled. I subsequently reduced the quantity in each to 7 pounds. My comparisons were to be direct, *i. e.*, between the buckets (along with their contents) without the intervention of weights, which from this time, through all the experiments, were employed only to restore the equilibrium whenever disturbed. The buckets were, therefore, kept suspended on the beam. The whole was placed in a situation exposed to the sun and air and dews. At the time of counterpoising the portions of earth, I put into each bucket an iron stirrer. These were simply two large nails selected with reference to equality of weight. The stirrers were always left in the buckets, so as to guard against the removal of the smallest portion of earth. The buckets were left in one condition (neither being disturbed) for twenty-four hours. At the end of that time they were still in equilibrium. Being thus satisfied of the similarity of circumstances, I commenced stirring (plowing) the earth in *one* of them. The atmosphere was very humid; and the portions of earth (balance stand, &c.,) were frequently taken in, to avoid the rain falling into them. *While this moist condition of the atmosphere lasted, the stirred earth gained daily in weight.* But a change came on almost imperceptibly, *as the atmosphere became drier;* and, on the fourth day, the gain was lost again, and the equilibrium restored. I continued to *stir* the same portion until it was *a decided loser*, the sun being bright in the day and the dews heavy at night. There was one morning, after a very heavy dew, when the gain was so perceptible that I found by restoring the equilibrium, that it was five grains. And this was not equal to half the loss of the day before. Several times during all the experiments, there was no perceptible difference between the indications in the morning and those in the evening.

Experiment 2d.—I *stirred* the other bucket (now the heavier) leaving the first undisturbed. *It lost very rapidly. It became the lighter one in the course of the day.*

Conclusion from these experiments: When the atmosphere is in a certain state of humidity, the pulverized earth absorbs moisture. When the atmosphere reaches a certain state of dryness, the stirred earth gives off its moisture. I think my experiments, with their variations, do most clearly establish as a fact, that the atmosphere does reach such a state of dryness that the plowing of the ground may cause it to lose more moisture than it gains. And my observation of the weather during my experiments satisfies me that this state of the atmosphere is by no means unusual.

In order to obviate the objection, that the absorption of moisture from below by means of capillary attraction, was prevented by confining the earth in the tin vessels, holes three-fourths of an inch in diameter were made in each, and candle-wick of equal length and quantity inserted, passing down into water below. They remained in this situation 24 hours, and were found of equal weight. They were then stirred repeatedly for 48 hours, at the end of which time *the stirred earth was found to have lost* 178 *grains.*

The operation was then reversed on the two vessels, and in 48 hours, they had changed weight, the *earth last stirred requiring* 140 *grains to restore the equilibrium.*

These results will no doubt excite the surprise of many cultivators, who have long supposed from the results of their own practice that stirring is the best means of retaining moisture in the soil. We cannot see, however, how the results could have been different. When the air is overcharged with moisture, and it condenses on powdered earth, it will obviously condense more rapidly by bringing up new portions in exposure to it. It is equally obvious that when the air is so dry as to abstract the moisture from the earth in contact with it, which is the case on every summer's day, stirring the earth successively exposes new portions to evaporation. Every one knows, that when any wet substance in grains, meal, or powder, is to be dried in the sun, the operation is carried on most rapidly when frequent stirring is given to it.

These experiments, although possessing great value for their precision and accuracy, are still defective. They give the truth, but not the whole truth. *Pulverization* is one thing, and *stirring up* that pulverized earth and *exposing it to evaporation*, is another. In the experiments, the earth appears to have been already pulverized sufficiently. And instead of performing the operation once a week or once a month, as in ordinary cultivation, it was done repeatedly in the space of 24 hours, which was needlessly often.

The attempt to show the effects of absorption *from below*, by means of capillary attraction, was wholly insufficient. The whole breadth of the bottom should have been in contact with moisture; a single coil of candlewick did not bring a hundredth part into contact. A most important object in making a soil deep and mellow, is to supply moisture *from below—the only soucce for it*, in the absence of dew and rain. This essential supply was entirely cut off, or very scantily furnished, in all these experiments. There should have been a wire-gauge bottom to each tin vessel, which should have been sunk into the soil, so as to get moisture freely from below. They could have been easily withdrawn for weighing.

A hard-pressed brick soon becomes dry in the sun; the same amount of clay reduced to a fine powder, will retain its moisture a long time. A soil which has been worked into mortar becomes hard and dry in few days of sunshine; one remaining mellow will hold water like a sponge and remain moist many times longer. If, therefore, the soil is made mellow by cultivation, it will tend to retain the moisture, instead of driving it off; while, if *already* mellow, the process might serve to dissipate the moisture.

The experiments were defective in not giving the *comparative* amount of evaporation from the two vessels. They merely furnish the loss by stirring. We should have been informed the amount evaporated from the unstirred earth. In the trials mentioned, the greatest loss was 178 grains (from 7 pounds of earth) in 48 hours. Admitting the moisture to constitute a third of the soil (a moderate allowance) there would be about 18,000 grains of water in each tin vessel, which would require for evaporation at the rate given two hundred days, provided none is returned by dew or rain or by absorption from below. This is a small quantity; and if stirred only once a week, instead of several times in 24 hours, would probably be many times smaller. We may therefore safely conclude that the loss to plants occasioned by the loss of water from stirring the soil, provided it is judiciously performed, is greatly overbalanced by the advantages resulting from keeping the soil in a mellow and finely pulverised state. Besides, the surface may be kept mellow by means of the harrow and cultivator, without turning up any considerable portion to the sun.

The following practical rules may be laid down, as applicable to all cases of this sort, and which we believe have been amply established by experience:—

1. All sandy soils, or those which are always mellow and which never crust in the least, are made drier by frequent stirring in summer; and the operation should be no oftener performed than may be necessary to keep the soil perfectly free from weeds.

2. All soils, containing more or less clay (and as a consequence liable to become hardened) should be worked often enough to keep up thorough pulverization, which will be less frequent for the under portions, and more frequent for the surface—the pulverized earth at the top preserving the moisture below, in the same way that a coating of sawdust or of tan is found to operate in mulching.

3. Any soil, *after* being brought to a state of complete pulverization, is made drier by being repeatedly turned up to the sun's rays; but as a crust forms on the surface after any shower or heavy dew, the oftener this crust is broken by stirring the surface the better. And it is decidedly better to plow deep and frequently, than to wholly omit cultivation and allow the surface to become hardened.

It may be proper to add, that in order to get the benefit of the absorption of the dew, earth should be freshly turned up at evening, when the surface will remain cool and condense the dew. If turned up during the heat of the day, the upper surface becomes warm and does not readily condense the moisture

He is idle who might be better employed.

ENTOMOLOGY.

No. X.—Borer in Apple Trees—The Buprestis.

In the fifth volume of the Country Gentleman, page 345, W. M. T. of Jessamine county, Ky., asks for information respecting a worm which has done great injury in his orchard of young apple trees, some of the trees being entirely killed by it. He has not been able to find this worm; but we gather from his account that it invariably commences its depredations upon the south side of the young tree, generally about a foot above the ground, and feeds upon the inner bark and outer wood, filling the cavity which it makes with its eastings, and at the end of its burrow it penetrates inward into the solid wood, the only external indication of its destructive work being the dark color of the outer surface of the bark.

A letter from S. Moore, Esq., of Kensington, Conn., states that a worm answering in all respects to the above account, is at present very troublesome in his and other orchards in his vicinity. He has repeatedly found the worm in its burrow under the bark. It is usually from a half to three-fourths of an inch in length. He and others are very desirous to know what insect this is, and what are its habits.

We wish Mr. M. had sent us specimens of this worm, and of the wood showing its operations. We feel much like the Israelites under their Egyptian task-masters—brick required of us, and no straw given us with which to make them. We have never seen an apple tree depredated upon in the manner above described. From what is stated of it, the insect would appear to be a species of the family Buprestidæ, or the brilliant snapping beetles, many of the larvæ of which mine a flat or shallow burrow in the sap-wood of the trees which they infest, immediately under the bark, which burrow is commonly winding or serpentine, and becomes more broad as the worm increases in size, and at its broadest end has a hole sunk into the solid wood, in which the insect lies during its pupa state. And it is most probable this insect is the Thick-legged Buprestis. Specimens of this beetle, from an orchard in Michigan, were sent to the office of the Country Gentleman last summer, for information as to its name, and I am indebted to Mr. Barry of Rochester, for pieces of wood containing the larvæ. But my information respecting this insect, the dates when its transformations occur, &c., is by no means complete. I propose, however, to present such an account of it as will enable Mr. Moore to ascertain whether this is the insect which is infesting his orchard. And if it is not, we hope he will not fail of forwarding us specimens of his insect, that will enable us to ascertain what it is. The perfect insect can probably be obtained by selecting a young tree which is fatally wounded by these worms, sawing it off above where the worms are nestling, and drawing a small bag or cap made of gauze, or of the netting used for musketo bars, over the stump, and tieing its mouth below where the worms are reposing. Or, without cutting the tree down, netting may be sewed in the form of a cylinder around the trunk, and its ends tied in such a manner that the insects will be imprisoned within it when they emerge from the wood. And all other worms which are found burrowing in the wood or bark of trees, the reader should know, may be obtained in their perfect state in this same way, except a few kinds which leave the wood and bury themselves in the ground to pass their pupa state.

Those insects which people commonly call snap-bugs, or snapping beetles, from their having the faculty of giving a sudden snap or spring, whereby many of them are able to throw themselves over when laid upon their backs, form two extensive families of the order COLEOPTERA. One of these families, named Elaters, (ELATERIDÆ,) are nearly all of dull colors, black, liver brown or chestnut. The other, named Buprestians, are mostly of highly polished metallic colors, many of them being among the most splendid and brilliant of any insects known. It is to the latter family, as already intimated, that the insect which we are about to describe, belongs.

Next to the common apple tree borer (*saperda bivittata*,) the most common borer in the trunks of apple trees in our country, is the Thick-legged Buprestis, named *chrysobothris femorata*, by entomlogists, from its anterior thighs, which are remarkably thick and swollen as it were, and have a little angular projection or tooth on the middle of their under sides. Hitherto, it is in Ohio and other western states, that complaints of this insect have been made. But, as it is a common species in all parts of our country, it will probably be depredating upon orchards everywhere. It is a native insect of this country, existing here, there is no doubt, long before the apple tree was introduced. Its natural haunt is the white oak, and other species of oaks. And it is probably in consequence of the extensive clearing up of our native forests, that it has been forced to select other trees on which to deposit its eggs, for the purpose of continuing its species. And not only the apple but peach trees are attacked, and young trees are sometimes killed by it.

The perfect insect is a flatish oblong beetle, half an inch in length or somewhat less, with its head sunk deep into its thorax, the thorax being more broad than long and rounded at its sides. It is of a shining black color, and of a firm hard consistence, and on each of its wing-covers the naked eye can discern three raised lines, running lengthwise, the two outer lines being interrupted by two impressed spots, which appear as though they were stamped upon the surface by means of a seal. When the wing-covers are spread apart, the back beneath them is seen to be of a beautiful brilliant green color. The under side and legs are like burnished copper, the feet being deep green.

These beetles make their appearance upon the trees they infest, during the months of June and July, running in the hot sunshine up and down the trunk and branches upon their south side, and dropping their eggs in the crevices of the bark. The worms which hatch from these eggs, feed upon the soft sap-wood immediately under the bark, and probably upon the inner layers of the bark also, forming a shallow wide cavity between the bark and the wood. When they approach maturity they fill the cavity which they have formed, with their castings, and sink themselves deeper in the solid wood, forming not a round but a long narrow hole, and only deep enough for the worm to be contained within it. Many of the insects of this family pass two or three years in their larva state, and it may be the same with this species.

These worms or larvæ, in their form, bear some resemblance to a tadpole or to a battledoor, being quite broad anteriorly, and suddenly narrowed into a long gradually tapering tail consisting of several joints. They have no feet, and are very flat both on their upper and under side, appearing as though the bark had been pressed down and distorted them. They are pale yellowish, with two small black points jutting out in front, which are the jaws. A figure of this larva, and a more full description of the species than what is here presented, with some account of a parasitic worm which destroys it, will be found in my Report on Noxious Insects, published in the last volume of the Transactions of the N. Y. State Agricultural Society.

To enable us to devise the best modes for combatting this or any other insect, it is necessary that we have full information respecting its history and habits. But from the analogy furnished by similar insects with which we are acquainted, we may be able to suggest remedies to which resort can be had, until further investigations shall make known to us others which will be more convenient and effectual.

Wherever, by the discoloration of the bark or any other sign, one of these worms is found to be present, the bark should be cut away until the worm is reached, when it should be destroyed. The wound which is thus made in the bark, will by no means injure the tree so much as the worm will if it is allowed to remain. But it is probable that before the worms can be discovered by any external appearances, they will have done much injury, especially if several are present in the same tree. Hence it is most important that we should have some resort by which to wholly shield the tree from the attack of these insects. One mode of thus protecting it, will be to impregnate the bark with some substance which will not be injurious to the tree, and which will at the same time repel these insects from it. The parent has the instinct to discover whether her progeny can subsist where she places them, and probably will never deposit her eggs in situations where the young will perish. It appears to be well established that all alkaline substances are poisonous to the larvæ of insects, whilst they also promote the health and vigor of vegetation. By alkaline substances the reader will understand me as referring to different preparations of the "fixed alkalis," potash and soda, and not to the whole class of chemical substances to which the term alkali is extended. We thus have every reason to believe that these beetles will not deposit their eggs upon the bark of a tree which is impregnated with alkaline matter. One of the most convenient and economical substances with which thus to tincture the bark of trees, is the common soft soap, found in all our houses. It probably is not till towards the close of their lives in the month of July that these beetles deposit their eggs. Therefore if about the last of June the bark of apple and peach trees be rubbed with soap, or if this substance be placed in the forks of the larger limbs, from whence it will be washed downwards upon the bark by the rains, these insects I doubt not will discover it, and will forsake every tree which is thus treated. ASA FITCH. *Salem, N. Y., June 2d*, 1856.

Good and Bad Seed Corn.

There has been a very general complaint this spring that corn has failed in coming up; many fields have had to be planted the second and some the third time. This no doubt has been owing to two causes. First, the unusually wet and cold spring, and secondly, the seed not properly secured, has been generally bad. Last fall was very wet, and corn placed in large bins heated to such a degree as in many instances to destroy its vitality.

The *germ* of corn is very tender—particularly so—and but little fermentation is necessary to prevent it from coming up. A person in this neighborhood, who selected his seed last fall when he was husking, and braided the husks of the ears and hung them in his crib, had scarcely a single failure in a large field—indeed, he said that he had never known corn to come up more evenly before in his life—although he planted very early. The cause, no doubt, was owing mainly to his seed being properly secured last fall. The damage resulting from corn failing to come up, has been very great—which might no doubt have been in a great measure prevented, by adopting the above mentioned course. E. W. HERENDEEN. *Macedon, N. Y.*

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INDIA RUBBER BOOTS.—Last winter I bought a pair of India rubber boots, double soled, and lined with cotton throughout, to wear while doing chores in the snow and wet. I now find them very serviceable to go into the wet grass, especially mornings, and recommend them to all who wish to keep dry feet and save leather boots. They should not be worn in the house or in dry weather. S. B. B

Michigan Subsoil or Double Plow.

Eds Co. Gent.—In the Co. Gent. of June 12, I find an invitation for those who have tried the "Michigan or Double Plow," to send you their experience, to which I most cheerfully respond, with the impression that no opportunity should escape that will influence farmers to avail themselves of so valuable an implement. I have owned one since September 1852, and used it sufficiently to wear out many points and one land side, and have this day replaced the worn parts with new, and commenced turning a stony piece of land, that, from causes needless to mention here, has been down *too* long—consequently June grass has taken the place of the clover, and now stands 9 inches high in defiance of stock, and seemingly boasts of becoming lord supreme of the premises; but my Michigan plow, with 3 horses, is putting it in the bottom of a 9 inch furrow, perfectly covered, and a good quantity of loose dirt about it, that will only need the harrow and *gang plow* to make it the most desirable preparation for wheat. You "presume" Mr. S. thinks the Michigan plow best in New-Hampshire for "deep plowing." My experience is that it is best for *any* depth as low as 5 inches, which is the shallowest any man should plow, unless he would recklessly expose himself to an action for *false pretense*.

With me nothing is equal to it for plowing corn stubble, and other material that should be put out of the way in preparing land properly for a crop. At this depth, (5 in.) it can be so arranged as to put 3 inches of pulverized new earth on top of 2 inches of the surface, with its contents, whatever they may be, which are placed in the bottom of the previous furrow, by the forward plow, upon the same principle that a good gardener would do his work with his spade.

In the stony land I am now plowing, no coulter could be used on a single plow, which would leave a torn rough edge of the furrow at the surface, in a position to promote the *growth* of the June grass, making the work of after culture for its destruction enormous, if successful even at that; whereas the coulter point of the forward plow cuts it perfectly, and when one plow is obstructed by a stone, the other by its position in the ground is aiding me in holding the plow in its proper place, when a single plow would be thrown out.

Too much cannot be said or written upon the subject of plows and plowing, upon which rests successful agriculture; but I have already said more than I intended when I set down after reading a portion of the Co. Gent; and as my team have had their nooning, I must be following them.

I should like to see from you something upon the complex and vexatious fixtures for draft and gauging plows, that are not convenient for any other purpose than to tax the farmers to support the mechanic, when simplicity and utility should predominate. I would give that matter a rub, but I have followed the plow some 50 years, and I might subject myself to being called *old fogy* or egotistical, so I forbear. Jos. Watson. *Clyde, N. Y.*

We thank Mr. Watson for the above, and hope he will give us his views about the "vexatious fixtures," to which he alludes.

To Prevent Injury by Mice.

I observe complaints in late numbers of the Country Gentleman of a large amount of fruit trees being killed by mice working under the snow. I would suggest that trampling the snow hard around the tree, would be a sure preventive. A large snow bank saved a fine lot of young peach trees for one of my neighbors, while nearly every peach and plum tree in the country of any choice variety, were totally killed by the excessive freezing of the past winter. Norman Phillips.

Remedy for the Borer.

Mr. Tucker—With your approval, the following prescription is most respectfully and with great pleasure dedicated, through your valuable paper, to the New-York State Agricultural Society.

Sure and total destruction to the Apple, Quince and Peach Borer; and at the same time a decided stimulant and safe fertilizer to the tree.

Make a concave mound of mellow earth around the tree, rising about six inches above the work of the insects. Thoroughly saturate this mound with a strong common salt brine, twice, at an interval of four weeks, at any time of the year when the ground is not frozen; stale beef or pork brine in its full strength, is just the thing. The mound of earth holds the liquid in suspension, round the tree, until by capillary attraction it is carried into the holes and burrows of the insect—where the salt is sure destruction to every grade of this ravaging and pestilent enemy. Vary the quantity of the dose with the size of the tree. Be cautious with small trees. Old, large trees, three feet round, may have a pailful at a time.

I have revived trees by this application from apparent death. Apple trees, 30 years old, with their trunks perforated very badly, are now perfectly healthy, and their wounds are healing over. Two Golden Sweetings, 8 years old, last June withered and showed signs of death. On examination I found the trunks full of borers, and more than half the surface eaten off. I made the application twice. Both trees revived, and made new wood the same season. This spring, I have treated every other tree with the application. These trees are in bloom, and the wounds made by the insect rapidly healing over. I would not now, without trial, recommend the application to any other than the apple, quince and peach. N. S. Smith. *Buffalo, N. Y.*

Muck as Manure.

Can you inform me whether it would pay to draw muck from an old beaver meadow, one mile distant, if it could be had for nothing, or what would it do to pay per load? How should it be used, if drawn this summer or fall? It has been used for a mill pond six or eight years; the muck is from one to two feet deep, probably made from the decayed grass and fallen leaves together, with what has washed in. Improvement. *North Hamdem, N. Y.*

The proper answer to this question must depend entirely on the amount of fertilizing matter in the muck, of which we have no means of judging. If the matter "washed in," contains large quantities of *animal matter*, the muck would be much better than if only the washings of common earth or soil. If there is little or no animal matter, it would not probably pay to draw it a mile. If, however, there is much decayed vegetable matter, it may be worth drawing for compost, provided it is first thrown out in heaps to drain and dry. Washed matter being usually free from stones, is better for placing in alternating layers with manure to form composts, than common soil or turf, containing more or less stone or gravel.

Experiment always affords the best data for decision; and our correspondent may try some of the muck as manure, along side of stable manure, and measure its results; and also use it in compost, in comparison with turf, and observe which works up the best. The first experiment will show the *richness* of the muck; and the latter its advantages in the way of *texture* for working over, and intermixing readily with manure.

Marketing Fruit.

There is no royal road to wealth. No business can be selected for general adoption, that will enable its occupant to acquire money rapidly, without a corresponding share of thought, experience or skill. The opinion is now common, and it is becoming more so, that setting out fruit trees will inevitably open a source of wealth to the owner, without any further especial attention. Planters will have to be undeceived on this point.

In the first place, a large share of observation, experience and judgment, must be exercised in selecting such varieties as will be valuable and popular, ten, twenty, or thirty years hence. Their value must depend on their vigor of growth, hardiness, freedom from disease, and productiveness, and on the smooth and fair appearance of the fruit, its intrinsic excellence, its time of ripening and keeping qualities, and not a little will depend on the reputation it may *then* have in market, to be judged of *now*. This is not so easy as some may at first imagine. It is true, that a thorough knowledge of all the best fruits, derived from actual experience with them—a knowledge not obtained in one day or one year—will enable the planter to select what are best for his purpose at *the present time*. But changes occur in the lapse of years. The Virgalieu (Doyenné) pear, for instance, so long at the head of all sorts for market in Western New-York, is already discarded by some on account of its liability to cracking. The *reputation* of a fruit has much to do with its sale, independently of its merits. As an example—a fruit dealer sent several barrels of this same pear to New-York, a part reached as Virgalieus (by which market name they were widely known,) and a part marked White Doyenné, (by which they were not known.) The former sold for nine dollars per barrel, the latter for only six, although gathered and assorted alike from the same tree. Now it requires a good deal of shrewdness to guess what excellent sorts, now mostly unknown, will have acquired a high and general name twenty years hence.

In the second place—a great deal of skill and careful management will be needed to conduct a well selected and newly planted orchard, safely and successfully through a series of years, into a good bearing condition. We have on other occasions had something to say on the best modes of insuring growth, and avoiding the various diseases and enemies which assail young trees, and which often greatly reduce the calculations of sanguine planters—and we shall not therefore enter more into detail here.

The third great point—and the one perhaps at present the most overlooked of all—is to secure a market for the crop after it has been raised. A good deal of excellent fruit has perished, all of which might have supplied the wants of the needy, in consequence of the headlong, unsystematic way in which it has been sent to market. Take, for example, the peach crop. A farmer has, perhaps, five hundred fine trees in bearing. He has never formed any plan for the sale of the crop, trusting that some dealer will come and ask for it, or intending to carry the fruit to market himself. The purchaser may or may not make his appearance. If he does not, no further arrangements are made till peaches generally are ripe. A general rush is then made from all quarters with them to the nearest town, the market is glutted, and they are sold for what they will bring. The report then spreads, as a matter of course, that there is no market for peaches, some are brought in, and many perish. In a few days they are again scarce and high priced, and if any peaches remain, perhaps another rush is made. In this way, the consumers are subjected to fluctuations in prices, and only procure them by snatches, not attempting to secure any thing like a regular supply. Thus, perhaps thousands of bushels are rotting under the trees, while purchasers are deprived of them. The right way is to keep the entire community, who do not raise them, constantly and regularly supplied at moderate prices; this would be better for all parties. To accomplish it, every fruit raiser should estimate weeks beforehand, the amount of his crop, and the various periods of its ripening. He should then make a contract with a city dealer for the whole, to be supplied at regular and stated intervals, or employ an agent for their regular and continued sale—with the understanding that they shall be at such moderate rates, that families can afford to go daily and obtain their regular supplies, without fear of being shaved. If those who plant peach orchards, would make a careful selection and distribution of sorts, so as to furnish a regular and uniform supply during the two or three months from the earliest to the latest, and would sell them at such prices as the community generally could afford to buy for daily use, probably ten times as many would be sold, at a greater average profit, and with a decided benefit to the health and purse of purchasers.

Another instance of bad management occurred in disposing of last year's crop of winter apples. It was nearly double the amount of average seasons; and prices ran low. Those who made early contracts with dealers, found little difficulty; but barrels could not be obtained for all, and many remained undisposed of. Many owners resolved to keep their apples till spring, with the hopes of higher prices. When spring came, and decay was commencing, a general rush was made with them to the cities; the market was quickly overcharged, and in New-York city, good winter apples, but slightly injured by decay, were offered at about the usual price of the empty barrels. The same management that we have proposed for the peach crop would have prevented such a loss. Fruit raisers must learn that there is an essential difference between selling wheat, which requires no management at all, except to get it to market, and selling perishable fruit, which requires a thorough knowledge of the business of picking, packing, transporting, and placing before purchasers. Those who are best informed on this branch of their business, are now in the practice of obtaining twice as much for their crops, as those who sell to any purchaser who happens to come along, and who take but little pains in doing the work of cultivating, picking and selecting in the best manner. They have acquired a reputation for the uniform excellence and condition of their crop, and fruit sellers are not afraid to purchase of them.

The question often occurs, What particular department of fruit raising is likely to promise the best and most certain remuneration? This can be answered only by the judgment and experience of the cultivator, in view of all the circumstances. For speedy returns, the peach and dwarf pear come first, as fair and remunerative crops may be had, with good treatment, five years from transplanting. High cultivation would impart a quality to both of these, so far above the common average, that the raiser would have a decided advantage in market, if he was always careful to maintain his reputation. *Good* peaches and pears will generally sell at some price; but the man who is *known* to have these only which are superior to all others, will be eagerly sought by purchasers. An orchardist in western New-York, from several hundred dwarf trees of the Angouleme pear, six years from the bud, obtained more than half a bushel as an average from each tree. and sold them all through a New-York agent, at thirteen dollars per barrel, or more than five dollars per bushel. They had received very skilful management, and were of the best quality. The trees being 8 feet apart, this afforded him a return of more than three hundred bushels per acre, or fifteen hundred dollars, for a beginning.

The cultivator, however, who selects peaches and dwarf pears for operation, must be awake to his business. If he neglects his trees, and the best avenues to market, he may possibly make occasional profits, but he will more likely fail in all instances, through the many accidents, disasters, and diseases, that knowledge, skill and vigilance only can avert.

The cultivation of *winter apples* is the easiest and most uniformly certain, but the profits, as a necessary result, are smaller. The man who plants Rhode-Island Greenings, Baldwins, Swaars, and others of the best standard sorts, *takes good care of them*, and then gives them such continued cultivation, that their crops shall be superior to others, may be pretty sure of reaping a handsome return. The most productive varieties will afford as an average, according to the repeated experience of good cultivators, about one hundred dollars per acre, yearly. We might give many instances; we make a single quotation from the Report from Ontario County, to the Fruit-Grower's Society of Western New-York :—

> Stephen Hendee, of West Bloomfield, sold (besides what he put up for his own use) $125 worth of apples from one acre of orcharding, in the fall of 1854.
>
> Samuel D. Millington, of the same place, sold his crop of apples, in the fall of 1854, from three acres, for $330. Nine Northern Spy trees, eight years from grafts, produced forty-five barrels of superb apples. His crop this year, (1855,) amounted to seven hundred barrels, worth $524. His Northern Spy trees bore full again this year; crop, one hundred barrels; he says they bear every year full crops of large apples, well matured. He mulches his trees with straw and straw manure. He grows no crop among his trees; prunes thoroughly, and gives his Spy trees an open head.
>
> Mr. Hendee manures with long manure, and grows crops of grain and grass among his trees; average crop, $75 per year.

If it be objected that these products are more than an average, we can answer that they are so, simply because the orchards received better treatment than common; ordinary management consisting simply in total neglect.

We have already given a single instance of the profits of *dwarf pears*. A large number of examples might be added of the large returns from *standard* pear trees. The following statement is copied from the Report already alluded to :—

> Mrs. George, of Victor, sold $24 worth of White Doyenne Pears from one tree eighteen years old, on the tree; the buyer picked them.
>
> Marshall Phinley, of Canandaigua, has three White Doyenne Pear trees, one quite small; sells the pears on the tree for from $50 to $60, yearly; has been offered $100 per tree for the trees; they are constant bearers.
>
> There is a tree of this variety on Judge Howell's homestead, about seventy years old, which has not failed of a good crop for forty years, and has averaged about twenty bushels a year for the last twenty years, which have been sold on the tree at the average of $3 per bushel, or $60 a year. This tree has been worth, or produced about $3,750 worth of Pears, in the New-York market.
>
> Judge Taylor has three large trees of this splendid pear, of about the same age; yield in 1854, eleven barrels; sold for $137.
>
> T. Chapin has a young orchard of this variety, of about 400 trees, some eight years from planting; he sold thirty barrels in New-York in the fall of 1853, for $15 a barrel—$450. In 1854, his crop amounted to fifty barrels, which he sold in New-York for from $18 to $22 a barrel; average, $20, equal to $1000.
>
> This year he lost a portion of his crop by the pears dropping, caused by planting corn in his orchard close to his trees, and which was a very heavy crop. All the White Doyenne trees about Canandaigua produce in about the same proportion.
>
> Soil deep, dark clay vegetable mould, sub-soil clay; trees sound and healthy.

Now, it may not be safe to say that such profits as these are to be expected in all instances; yet as these were not accompanied with any unusual care or skill, it may not be unreasonable to expect results not much inferior, provided all the increased experience and skill of the present time is brought to bear upon the business. If $25 a year is an average product of a single pear tree, (of which we could furnish a multitude of cases, besides the preceding,) one hundred trees to the acre would furnish an annual yield of $2500. The *demand* for fruit is at present increasing more rapidly than bearing trees; prices of the best pears have at least doubled within a few years; the finest *winter* varieties now sell readily in the large cities at one to three dollars per dozen; and the result of their sale and consequent introduction to notice, is to make them better known and more sought after.

The present appearances are, that it will yet be a long time before the market will be overstocked with them, and that prices will rather advance than recede. But those who would make their cultivation profitable must not expect that planting out trees simply, will answer the purpose—skill, knowledge and attention, must be brought into requisition. But while neglect will certainly end in failure, there is probably no business where well-directed intelligence promises more certain and more ample profits than the extensive culture of the finest fruits for market.

Soil Analysis:

OR THE RELATIONS BETWEEN THE COMPOSITION OF PLANTS AND THE SOIL IN WHICH THEY GROW.

It is now pretty generally suspected by working farmers, and universally acknowledged by the highest authorities in scientific agriculture, that the practical value of analyses of the soil have been altogether over-estimated. We have given to our readers the testimony of several of our own scientific men upon this subject, as helps to a more correct state of public opinion in regard to it; and we have now the opportunity of confirming that testimony by that of a British chemist, the author of a series of papers on the Chemistry of Agriculture, in the North British Agriculturist, in a recent issue of which paper we find the following language :—

"To analyse a soil, and determine from the results the degree of its fertility and its adaptation to particular crops, was one of the first problems placed before the agricultural chemist, and from its solution the greatest advantages to agriculture were anticipated. *As yet these expectations have not been realized*, nor can this be considered as a matter of surprise. The progress of our knowledge, in place of simplifying, has complicated the question, and has shown that the fertility and infertility of a soil is dependent upon a *variety* of circumstances, of which its chemical composition is *only one*. Instances exist in which the barrenness of a soil can be distinctly traced to the deficiency of some one or other of the necessary elements of plant-life; but in other cases, a barren and a fertile soil may present an almost perfect similarity in composition, and contain all the elements required by plants in proportions known to be amply sufficient for their healthy growth. The difficulty of explaining these facts has been increased, just in proportion as soil-analyses have become more minute, for their tendency has been to show that the instances, in which infertility is due to the *absence* of any of the essential constituents of the plants, are comparatively *rare*, and that quantities which we are apt to overlook as totally unimportant, may be amply sufficient for all that is required. One-tenth of a per cent. of potash, soda, or phosphoric acid, may appear a quantity so small that the chemist might be justified in neglecting it, and yet a soil containing these quantities is capable of affording an *abundant supply* of these elements to *many generations of plants;* and notwithstanding this, there are soils containing a much larger quantity of these substances, which if not absolutely barren, are only capable of supporting a very scanty vegetation. These facts have rendered it obvious that it is not merely the presence, but the accessibility, so to speak, of the constituents of a soil that must be determined; and when the chemist, in addition to the exact proportions of these minute quantities, is required to ascertain the various forms of combination in which they exist, it is natural that he should show little disposition to enter upon a branch of investigation of such complexity, and which in the present state of our knowledge is likely to give only negative results.

"The difficulties of this investigation have been so fully recognized by Liebig, that he has pronounced it *impossible* to arrive at a satisfactory knowledge of the composition of the soil, and its suitableness for particular crops, by analysis alone."

As a preferable means of determining the prominent characteristics of a soil, Liebig has suggested the examination of the ash of the plants which naturally grow upon it. Plants, so far as their mineral constituents are concerned, may be divided into three principal classes, viz.: potash, lime and silica plants, characterized by the abundance of these particular elements in their ash; and the basis of Liebig's suggestion seems to be this: that, if any soil is found naturally to maintain a growth of plants of any one of these classes, it may be considered as capable of affording abundance of its characteristic ingredient, and consequently as well adapted for the support of all similar plants.

That there is some ingenuity and plausibility in this suggestion, may not be denied. The first settlers of our Western States acted upon a somewhat similar theory in the selection of their lands, taking it for granted that in the vegetation which they found upon the soil, nature had afforded a means of determining its fertility and some of its special adaptations. But that it cannot be relied on as a certain means of determining the main chemical constituents of a soil is evident from this,—that there are plants which grow upon a soil, not because it contains *abundance* of those elements which it requires, but for the very opposite reason. Thus some plants which require much lime, or are lime plants, will not grow or thrive upon calcareous soils, because their special power of absorbing lime or their avidity for it, causes them to take up more of it than their healthy existence requires, or enough of it to be poisonous and fatal.

The conclusion of the whole matter seems to be this—that *chemical science* cannot, for the present at least, afford to practical tillers of the soil any assistance of much value, either by analysis of soils, or by the recommendation of special manures based upon such analysis. Happily past experience and new experiments are capable of doing them much more service in enabling them to determine the specific requirements of crops, or those fertilizers which act most beneficially on particular crops. In this way the value and special utility of plaster for clover, bone-dust and superphosphate of lime for turnips, ammoniacal substances for wheat, &c., have been determined. And by such experiments as our State Ag. Society is encouraging by the offering of premiums, we may hope for more light upon a subject which chemistry seems at present unable to illuminate.

At a time when so much is said about soil analysis, defects of soils, mineral manures, &c., we are apt to forget that the grand sources of the food of plants, from which they derive their chief nutriment and support, are decayed vegetable and mineral matters. Our main study should be to obtain as largely as possible, carbonaceous matters from swamps, decayed straw, &c., and to mix these with our animal manures. These are the principal requirements of all soils; and for particular crops *experience* has as yet done *more* than *science*, in determining the best special applications.

Cheap Ice Houses.

Messrs. Editors—Will you inform me through the Co. Gent., of the most approved manner and material of building ice houses, and also the smallest dimensions (or no. of loads) that it can be kept in through the summer for a small family? E. H. Bedford. *Glenham, May 17th.*

The cheapest small ice house is either one within another building, or else dug into the ground, provided a gravelly hill-side can be found for the latter. If made of rough boards, one may also be constructed at moderate cost, wholly above ground.

If room can be had within some out-building, all that is necessary is to make double board partitions for surrounding the ice, with the space filled with shavings, tan, or saw-dust. If shavings or tan are used, the space should be one foot in thickness; eight inches will do for saw-dust. The bottom should also consist of a similar thickness of the same material, covered with boards. These bottom boards, if laid loosely down, will admit of necessary drainage between them; if tight, holes should be bored through them for this purpose. It is essential to successful keeping, that all the water running down from the melting ice, should have a ready drainage; at the same time care is needed that the air be not admitted from below. There should be a covering at the top, similar to that at the sides, so that the ice may be perfectly enclosed from exterior warmth. If the building is a separate one, the space just below the roof must be sufficiently ventilated to allow the escape of damp or heated air next to the sun's rays.

An underground ice house, or one above ground requires essentially the same construction, the leading requisites for success being, 1. A non-conducting substance (as shavings, chopped straw, or saw-dust) of about a foot in thickness on every side of of the space where the ice is deposited. 2. Ready drainage. 3. Exclusion of air from entering below, its tendency to rise, if warm, being great. 4. Ventilation of the *garret* or space next the roof.

Shavings are by many preferred to saw-dust, as the latter is apt to become wet through the sides, ferment and heat, and decay.

In filling, the colder the ice the better, and the square blocks as they are closely laid up, should have all their interstices filled with saw-dust, and a space left of a few inches around most the sides, similarly filled. The top should be covered with a foot or more of saw-dust. In taking out the ice, the place must be entered *from the top*, as the warm air admitted, does not descend; while an entrance below would freely admit warm, ascending air. If made within another building, there is no difficulty in having an opening at the top for withdrawing the ice; a door may be made at the side to be used afterwards as the deposites are lowered. If in a separate building, the entrance can be at the side only, in which case two doors are most convenient, one above the other. These doors should be double, with a space of confined air, which space should be filled with straw or shavings, except when the doors are in daily use.

Seven or eight feet square is the smallest size that should be adopted, when a good supply through summer is desired. A strict attention to all the leading requisites for success, in construction and management, will secure better preservation with a space eight feet square, than one twice this size and badly managed.

A very cheap mode of keeping ice, is to make a strong plank box, eight or ten feet square, placed within a building, or in a shaded place, cover the bottom a foot with saw-dust, and then build up the ice in a solid mass, leaving a space all around of a foot between the ice and box. Then fill this with saw-dust, and cover with a foot of the same, leaving the top for entrance. By this arrangement, a single wall only is needed.

The Game Fowl.

The Game Cock has long been held in high estimation for its neat and elegant form, its brilliant and beautiful plumage, "its graceful and majestic carriage, and its bold, proud, courageous bearing." Some writers esteem it an intermediate link between the wild fowls of the East and the ordinary barn-yard fowl. The bird seems to occupy such a place in size, and somewhat in form, but far excels both in courage, spirit and endurance.

Cock-fighting was fashionable in Greece five hundred years before the christian era; and from that time to the present the game fowl has received much care and attention from the "fancy."

Most of the ancestors of our game birds came from Great Britain, while a few have been brought from France, Spain, Germany, Mexico, and the East Indies.

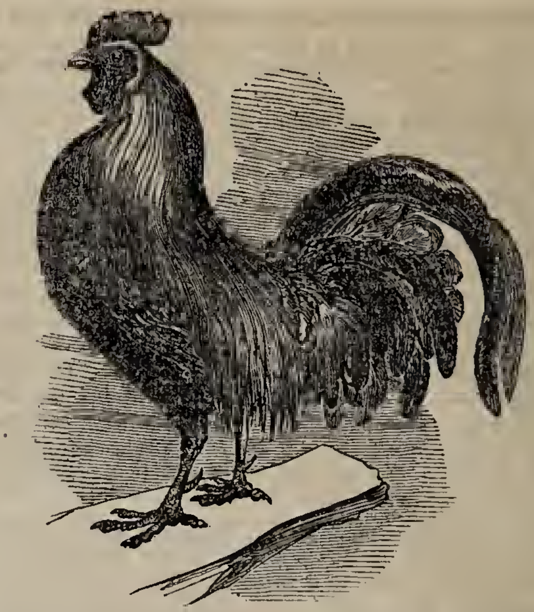
If fowls were bred only for beauty of form, bright and gaudy colors, undaunted courage, or the power of great endurance, the fancier or the amateur might well be satisfied with almost any of the game family; and this family is a very numerous one. But as many of these distinctions depend almost entirely upon color, the description of one will answer for nearly all.

The English Poultry Book sums up the characteristics of the game fowl as follows: "The head of the cock should be thin and long, like that of a greyhound; face bright red; beak massy at the root, strong and curved; eyes large and sparkling; neck long and full; breast broad and well developed; back short, and flat between the shoulders; body tapering towards the tail; wings inclined to expand and cover the thighs, somewhat after the manner of a bantam; thighs short and muscular: shank or beam of the leg powerful, and long in proportion to the thigh; legs well forward, with a clean flat foot and strong claws. When placed on his breast on the palm of the hand he should be evenly balanced. In condition he should exhibit closeness and hardness of feather, while his carriage is erect, evincing boldness and self-confidence." Baily adds, "His comb is single, bright red and upright." "The spur should be low on the leg."

The hen should possess the same points as the cock, allowing for difference of sex. The figure should be neat and her motions quick, showing great activity.

Some English authors enumerate over thirty sub-varieties of the game fowl. The principal strains bred in this country are the following: Black-Breasted Reds, Brown-Breasted Reds or Gingers, Duckwings, Blacks, Piles, Blues or Greys, Hen-cocks or Hennies, Whites, and Sumatras.

The name *black breasted reds* indicates the color of the cock of this sub-variety. They are again divided into five strains or clans—as those with *white legs*, which distinguishes the Earl Derby breed; a second with *yellow legs;* a third with *olive legs;* a fourth with *blue legs;* and a fifth with *dark legs.*



The Game Cock—[*This engraving is copied from Martin's work. but can hardly be considered a good representation of a well-bred game cock.*]

The true Derby cock is more highly prized in England than any other game fowl. This bird has a bright red face; orange red hackle and saddle; dark brown-red back; intense black breast and thighs; smaller wing-coverts and point of wing maroon; greater wing-coverts tipped with steel-blue, making a bar across the wing; wing quills bay, with the exception of one or two of the outer which are tipped with white; tail full, carried high, and iridescent-black. "*Beak, legs, and feet white.*"

The hen has the upper mandible dusky at the base; comb, face, and small wattle deep red; around the eye and the throat chestnut-brown, stem of hackle-feathers light buff, while the webb is a dull brown, laced with black, "breast shaded with roan and fawn color;" belly and thighs ash color; back and wing-coverts a thrush color; wing quills and expanded vertical tail, black; while the legs, feet, and nails are white. Weight of cock about five and a half pounds; of hen one pound less.

The other black-breasted reds differ from the Derby only in the colors of their eyes, beaks, legs, and feet. Each strain of birds has its beak, legs, and feet of the same color.

In this country we have a loose custom of calling all black-breasted red birds Derby fowls, but none but the white-legged is entitled to this name, any more than a yellow shanked dunghill can be called a Dorking. Some persons prefer the yellow or the olive legged to the white, and they are undoubtedly just as good birds in every respect, and to our taste quite as handsome.

The *brown-breasted reds* or *gingers*. All of these have brown breasts, except a few that are streaked, while all have red hackles and back, and black tail. Some are bearded, called "muffs," while a few have light crests on the back part of the head, and are termed "tasselled." "The hens are a dark brown or a rusty black, with a little yellow on the hackle, back, and wing-coverts.

The *duckwings* are distinguished by a greenish purple band across the wings, similar to the brown duck. They are greatly admired. They are of almost every shade of color.

But few *English blacks* are bred in the United States. A majority of them have a yellow or buff colored bar on the wing-coverts, and are frequently called *brassy-winged blacks*.

The *piles* have white as one of their component colors, as red and white, yellow and white, black and white, or a mixture of two or more colors with white. A few are *hen-tailed.*

"The *blues* and *grays* have a dull slate breast, with straw-colored hackle and saddle-feathers." The hens should be wholly blue.

The *hen-cocks* or *hennies* are brown or speckled, and are readily distinguished by the absence of sickle feathers in the tail, being "hen-tailed." They are also almost destitute of neck and rump hackles, which gives them a gaunt figure. Most of the ancestors of our henny game fowls came from Mexico, and are named after that country. The Mexican strain are usually denominated pheasant colored, with an occasional change in plumage from a light yellow to a dark brown.

White game fowls are difficult to breed, as they are apt to throw colored feathers, of red, buff, or black, which changes them to piles.

The games called *Sumatra* have been quite recently introduced into this country from the East Indies. It is possible that the Poultry Book includes this bird under the name of "Indian," but we think not. Many of these birds are entirely black, though some have red hackles, and a few are specked with white. Some writers, apparently anxious to multiply varieties, have proposed, with doubtful propriety, to divide these birds into classes according to a real or fancied difference in color and form, as the *Sumatra game*, the *Sumatra Ebon*, and the *Sumatra Pheasant.* The cock has a small pea comb; small wattles; a very full neck-hackle; full, flowing, and almost horizontal tail, with rather long dark colored shanks.

Our climate, in the latitude of Albany, is most too severe for these birds; they are also rather difficult to raise; and after all are only game "with the natural heel," at least they have often failed when pitted with a bird with gaffs. To those who breed only for fancy it matters little whether the bird is "game" or not, so long as his form is well-proportioned and his carriage easy and graceful, qualities which this bird possesses in a fair degree, though in these respects we consider the Black-breasted Reds his superiors.

Game hens of all the different varieties are only fair as layers, while they are close sitters, and the most vigilant and watchful as mothers.

None of the games will bear confinement in a small yard as well as the Black Spanish, or the Shanghae; the most of them are hardy and easily raised; and all of them have fine-grained, tender and very savory flesh, making them superior to all other fowls for table use, the true English Pheasant alone excepted.

Sweet German Turnip.

My communication in Co. Gent., p. 333, respecting this incomparable late keeping turnip, has brought me numerous and unexpected applications for the seed, with inquiries as to my method of cultivation, price of seed, &c. I will answer them by saying that my supply of seed is so near exhausted, that I can spare no more at present; but as I have a large quantity of the turnips "set out," I shall be able to furnish seed as soon as the present crop ripens. To those who have inquired the price, I would say, that for $1, I will send a pound of it by express or any other conveyance requested, or an ounce by mail, post paid, for 6 postage stamps, or 18 cts.

Several correspondents have inquired my method of cultivating for a field crop. Last year I raised the best I have ever seen, and of course would recommend others to cultivate in the same manner, which was as follows: I selected a piece of land that was planted with potatoes the year before, and highly manured with barnyard manure—soil a gravelly loam—plowed about the 1st of June, and sowed in drills, far enough apart for the cultivator to pass between them; at the second hoeing thinned to 14 inches. I used no fertilizer, excepting a light top-dressing of plaster when they first came up. About the 1st of Nov. I harvested as beautiful a lot turnips as I ever saw. I have specimens of them now (June 6th) that are, as sound and fresh as when harvested. By actual measurement, they yielded at the rate of 900 bushels per acre. I would advise not to thin them until the plants have attained a considerable size, else the cut worm may "leave but a remnant behind." Those who received the seed will confer a favor by "reporting" their success in raising them, as I am not yet decided as to the best time of sowing, but think they do best if sown from the 1st to the 15th of June. EDWARD L. COY. *West Hebron, Wash Co., N. Y*

Culture of Colza and Rape.

MESSRS. TUCKER & SON—Seeing an article in the Country Gentleman of May 8th, referring to Colza and Rape culture, and having had some experience myself in the cultivation of this plant, both in Prussia (my native country) and in America, I send you a few lines of my experience on the subject.

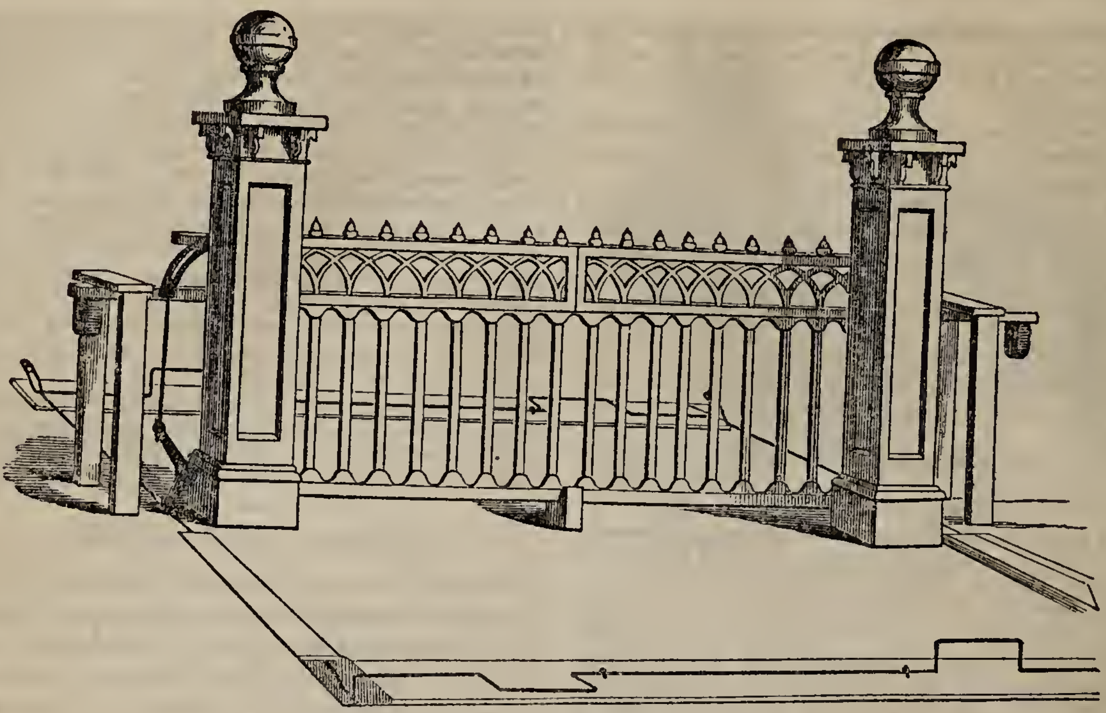
Wishing to see if this plant could be successfully cultivated in this country, I sent to Europe, and obtained some seed of the kind most in use there. This was four years ago. Since that time I have raised a few bushels of seed each year, and believe it can be cultivated in this country with as much success as in any other. The soil should be prepared about the same as for wheat; the seed sown the latter part of August, and the yield is about the same number of bushels per acre as wheat. It stands the winter well, and is no more injurious to the soil than any other crop of winter grain.

I have had oil made from the seed twice. At one time I got three gallons of oil to the bushel of seed; at another time two and a half gallons. When I got the three gallons there was a workman in the mill who was acquainted with rape oil manufacturing in Europe. When I got the two and a half gallons, there was none in the mill who knew any thing about its manufacture. This I believed to be the reason why I did not get the same quantity of oil per bushel at the two different makings.

It is unnecessary for me to speak of the superior qualities of this oil, as you have spoken of it in your paper. I readily got one dollar and twenty-five cents per gal. for all I had to sell. It is my intention to build a mill to manufacture this oil, so soon as there is a prospect of my getting a sufficient quantity of seed to warrant me in so doing, as I am fully convinced that it will be a profitable investment both to myself and those who should raise the seed. I received several different kinds of the colza seed from the Patent Office last year. I have planted them in such a way as to test the merits of each particular kind, and will report the result to the Patent Office.

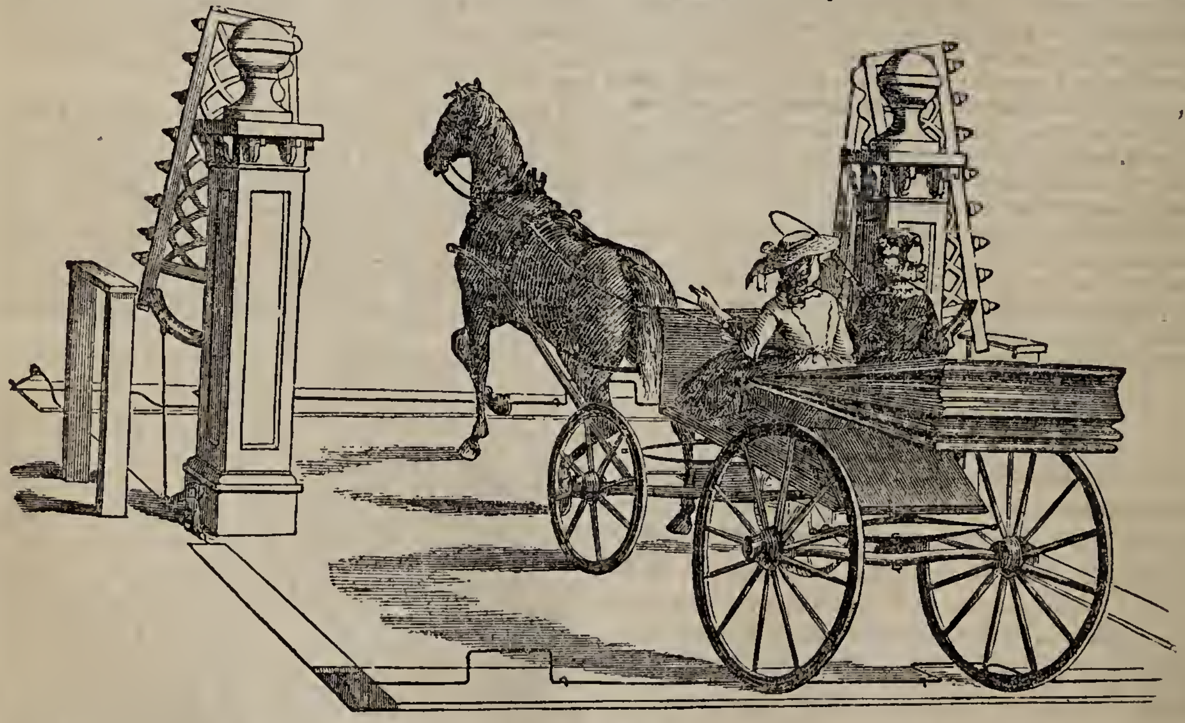
From present appearances there is one kind which will yield much more than any of the others. If there should be any person who would wish further particulars on this subject, I would be pleased to inform them, or if they should wish seed I could supply them. CHRISTIAN MEYERS. *Near Bridgton, Cumberland Co., N. J.*

THE CURCULIO.—A reward of $500 was offered by the Kentucky Horticultural Society at its meeting in Louisville, last week, to the discoverer of a certain and effectual remedy against the *curculio.* Said remedy not to be so costly or troublesome as to prevent general application.



Woodruff's New Self-Acting Gate.

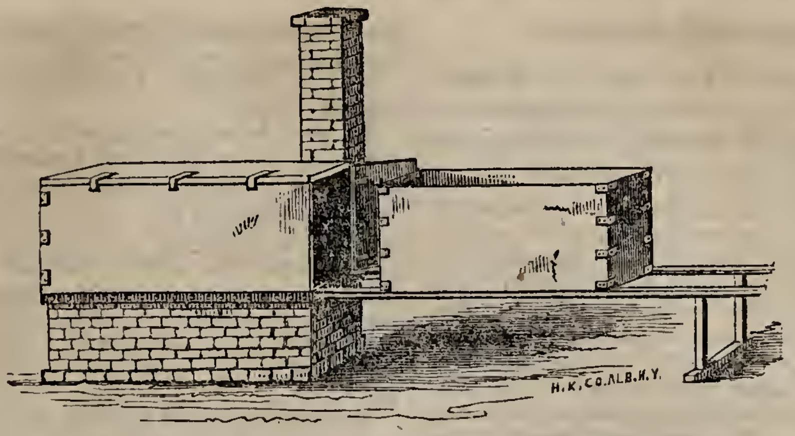
Mr. Woodruff sometime since obtained a patent for an improvement in farm and ornamental gates, and a full-sized working gate was on exhibition at the late fair of the American Institute, at the Crystal palace, New-York. Those who witnessed the operation of that gate expressed themselves highly pleased with its operation; but experience has demonstrated that self-acting swing-gates are objectionable, from their liability to damage by heavy gusts of wind and gales. To remedy this and other defects Mr. W. has invented the gate represented by the annexed engravings, and has made an application for a patent through Fowler and Wells' Patent Agency, of 308 Broadway, New-York city. This gate does not swing horizontally, but is composed of two separate parts, one being attached to each post by two hinges operating vertically.



The gate is so jointed as to close up something after the manner of a lady's fan, yet in a very firm and substantial manner. As each half of the gate is but four or five feet long, it can easily be made strong and durable. This gate is balanced upon its hinges by counter weights beyond the posts, and is operated by the wheels of the carriage or runners of a sleigh, which moves the rod over which it passes. This rod operates the side-bars or chains, which are attached to the cranks outside the posts, and which move the gate as desired, opening it on approach and closing it on leaving.

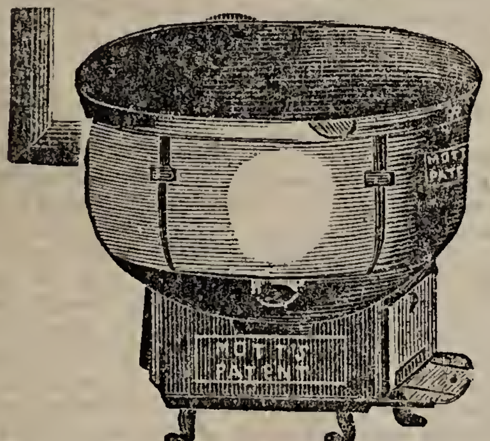
We are informed that the inventor is prepared to deliver the gate represented in the engravings, boxed for shipment, with directions for putting it up, so plain that any ordinary mechanic can understand them—without the main posts, which can be constructed to suit the taste of the applicant—for $35, which is less than it could be manufactured without the labor-saving appliances possessed by him

Any orders may be addressed to Fowler and Wells, or to the inventor, at Elizabeth City, N. J



Steam Boilers.

A Minesota correspondent inquires, "What is the best kind of steamer for steaming food for cattle, and where is it to be had—or is there any simple and efficient method to answer the purpose, at a small expense, and which I could *get up* here, without incurring the great expense of carriage from the East?"



The best *boiler* of the kind sold here, that we are acquainted with, is Mott's Agricultural Furnace, which is simply a large kettle, surrounded by a cast iron case, so as to leave a space of only an inch or two between the case and boiler, through which the flame passes, and is thus spread out into a broad sheet, in contact with every part of the boiler. A small stove is cast as a part of the whole, immediately beneath, and a very small quantity of fuel is sufficient to heat and boil a large volume of water. To convert this into a steaming apparatus, place a barrel or tub upon this boiler, a little less in diameter than the boiler, so as to set *within* it about an inch or so, and having holes bored through the bottom to allow the steam to pass up into it. The small gutter round the bottom formed by setting this barrel within the boiler, is filled with the meal used as food, and is thus rendered nearly steam-tight. The cover may be a tightly-fitting lid; or, if roots are steamed, a layer of meal on the top will keep in the steam.

A cheap and good boiler may be made of two inch plank, made into a box, halved together at the corners, and secured by nailing on sheet-iron braces. This box should be of such a size that a single sheet of large sheet-iron may form the bottom, by projecting two inches on each side, so as to be bent up and nailed against the sides of the box. This is set on brick-work, forming a place for the fire beneath; the fire striking against the sheet-iron only, and the flue far enough off to secure the wooden part of the box from burning. A board, fitting the inside of the box horizontally, has cleats nailed across the under side, so as to keep it about three inches above the sheet-iron bottom; and these cleats are hollowed up in the middle, so as to rest only on their ends. The board has several holes bored through for the passage of the steam. About three inches of water are poured into the box, the roots or other substance are then placed upon the board, till filled; the tight lid is buttoned down, and heat applied beneath till the steaming is completed. A box of greater length may be used, the sheet-iron covering only a part of the bottom, provided sufficient care is taken to make it tight where joining the wooden portions of the bottom, the iron part only, as a matter of course, being over fire-place. Or, two sheets of iron may be joined together by lapping like the joints of stove-pipe, and the box thus made double the capacity. The fire-place will economize the fuel in the best manner, if built so that a *thin sheet* of flame will pass beneath the whole bottom, like that in Mott's furnace.

A steamer was described many years ago in one of the earlier volumes of the Cultivator, which possesses several important advantages on account of the ease with which its contents are transferred from one place to another. It is represented in the above figure, where the box on the left is the boiler set on the brick fire-place as already described, but with the flue placed at *one side*, so that a door may open at the end. The right hand box is placed on small wheels or rollers, which run on horizontal rails, running into the boiler, where it is enclosed by the tight door. This box (with holes bored in its bottom,) is run along the rails under the bin of roots, and is quickly filled through a trap door. It is then run into the boiler, the door closed, and heat applied. The three inches of water is quickly made to boil, and the steaming process goes on rapidly. When completed, the box with its cooked contents, is run out (by hooking into a ring) on the rails, and an iron pin withdrawn which opens its bottom downwards, and discharges its contents into another box placed beneath, and standing beside the feeding trough. If the rails are of some length, several such boxes may be filled successively, and allowed to cool. No safety-valve is required, as a sufficient quantity of waste steam will escape at the door, even if *list* is applied round its edges to make it tight. If necessary, a stop-cock or two may be inserted into the lower part of the boiler, to show the amount of water, as in the common boilers of a steam engine. The door is set about four inches higher than the bottom of the boiler, to allow space for water.

We cannot state from experience the value of this apparatus, but if there is no drawback, it must save a great amount of labor in handling roots and other food for cattle, which, being daily performed, constitutes a large item in a year.

Picking off Potato Blossoms.—The last number of the Country Gentleman contains an account of the increase of the potato crop, caused by picking off the blossom. This may be so in theory, but in practice, in an experiment performed under my observation, the difference was so small as to be inappreciable. Possibly in the instance mentioned by Liebig, other causes might have operated in producing the result. A single experiment proves almost nothing—it may be easily repeated. T.

The Cashmere Shawl Goat.

Gallatin, Sumner County, Tenn., June 5, 1856.

To the Editors of the Cultivator and Country Gentleman:

I have been thinking for some time of calling your attention, and that of the numerous readers of your widely circulated agricultural journals, to the recent importations of the Cashmere Shawl Goat, an animal as remarkable for the extreme fineness of its fleece, as for the enormous prices which it at all times commands in market. The first and only importations to the United States, were made a few years since, from Turkey in Asia, by Dr. James B. Davis, of Columbia, S. C, who resided for some years in the East, and procured them under great difficulties, and at much cost and personal hazard. They have been recently introduced into Tennessee by Messrs. Williamson, Adams & Co., an enterprising firm of public-spirited gentlemen, at Gallatin, Tenn., and are now on my farm near this place. The Company have a charter of incorporation granted by the last Legislature of the State, which is doing all in its power for the encouragement of the farming interests, having in successful operation societies under the direct charge of a State Bureau, in the three grand divisions of the State, in connection with county societies in most of the large and populous counties. The fact is Tennessee, so long behind-hand, in that public countenance to these interests, is now far ahead of most of the older States in the encouragement and fostering of associations for the advancement of agricultural and mechanical arts.

Most of your readers are doubtless familiar with the history of the Cashmere Goat, and it is scarcely necessary to speak of the great intrinsic value of the wool over that of any other fleeced animal known. The almost fabulous prices at which the shawls have sold is known to almost every one, often approaching thousands of dollars each. One of the chief causes of its high value is the unperishable nature of the goods manufactured from the Cashmere wool—surpassing in durability of wear all other articles. The adaptation of the animal to our climate has now been fully tested, while its hardy and lively nature, its habits and *self-protection* from dogs and other enemies, are qualities which highly recommend them. They can be raised advantageously, and thrive upon weeds, and briars, &c, which are rejected by other animals. Not the least remarkable is the manner of gathering the fleece, which is *pulled* instead of being sheared. I have recently weighed the fleece from one, and it turned out *three pounds, ten ounces* (3 lbs., 10 ozs) semi-annually. The entire yield of the company's stock has been engaged in the city of New-York at $8.50 per lb., from which point it will be sent to Paisley in Scotland, for manufacturing into the shawls. I beg leave to enclose a sample of my raising.

It may not be out of place in this connection to remark that great credit is due to Dr. Davis, of S. C., for the enterprise he exhibited in the introduction of the Goat to this country. He was at the time in the employ of the Turkish Government at a salary of $15,000, engaged in experiments upon the growing of cotton in the Sultan's dominions. He went out upon the recommendation of President Polk, to whom application was made by the Turkish Government, for the services of some competent Southern gentleman, familiar with the cotton culture. While there he determined to procure the Goat from its native wilds. The story of the journey would be too tedious for my brief letter, and I will merely add that with an expensive outfit at Constantinople, a perilous journey of months, and the loss of many men and camels, he succeeded in capturing and carrying off eleven of the famous animals whose fleeces in the shape of shawls are so highly prized and coveted by the ladies of all civilized nations, and for which prices almost startling have been paid by the wealthy. On his return home Dr. Davis visited London, and exhibited his flock at the British Museum, attracting great attention, an account of which may be found in the files of the London *Times*, of that date. They were, also, afterwards exhibited at Paris.

I enclose, also, to you the following extract of a Report made to the New-York Agricultural Society, by a committee of scientific gentlemen, December 1, 1854:

The undersigned cannot avoid the conclusion that, in the animals imported by Dr. J. B. Davis, and whose descendants have been the subject of this examination, we have the first known specimens of that valuable race of animals from whose hairy fleeces the celebrated shawls are manufactured—the shawls known in commerce by the inappropriate name of 'Real Camel's Hair.'

The introduction of this variety promises to be of more value to the agriculture of the United States than that of almost any other domestic animal.

James Renwick.
Jas. R Chilton.
Wm. H Elliot.

After a careful examination of the whole subject, I cannot avoid the conclusion that the introduction of the animal will constitute an era in manufacturing which cannot fail to result in great profits to those engaged in it. There has not been a single instance up to this date, where the Cashmere Shawl Goat has brought at sale less than $1000 each. Richard Allen.

Annual Crops of Wheat from one Field.

Messrs. Editors—A statement to the following effect has been recently made in a Western State by a farmer recently from your State. Two farmers in the neighborhood of Cayuga lake had each a bed of plaster upon his farm. Desirous of ascertaining the effects of raising a crop of wheat every year from one field, while sowing clover and using plaster liberally with every crop, each one devoted a field or fenced off a patch for this purpose. Wheat was sowed in the month of Sept. of each year and clover seed to the extent of twelve or fifteen pounds either with the wheat or in the following spring, to which plaster was applied in very liberal quantities. After eight or nine years of such management, the crops of both grain and straw improving all the while, the statement represented that the straw became so luxuriant that it could not be prevented from falling down or lodging. The person making this statement could not inform us what was next tried upon these fields. Our curiosity was considerable to ascertain whether the fields had become "too rich" for Indian corn as well as wheat, and also whether the falling down of the wheat was owing to a want of the necessary silicates, or to what other cause.

Now as those from a far country sometimes indulge in manufacturing large stories, or in stretching real facts into surprising dimensions, several of your Western readers would like very much if you or any of your correspondents could state the *exact* history of the experiments referred to, if any such have indeed ever been made. Experiments of this kind, in sufficient number to afford a stable foundation upon which to rest a general law or rule, would certainly be exceedingly interesting as well as highly valuable for the new light which might thereby be thrown upon the science and art with which cultivators of the soil have the nearest concern. Even two experiments of this kind would possess a good deal of the same kind of interest and value.

If any report of this kind, or of the experiments referred to, have ever appeared in your columns, it must be wholly unknown to a large proportion of your present readers. And if a written and printed statement of the facts should interest hundreds of your present readers as much as the verbal statement interested the present applicant for farther information, one or two of your columns would be occupied to good advantage. Obs.

Sheep Shearing Festival near Brownsville, Pa.

The public shearing of the flock of pure Merino sheep of Gen. John S. Goe took place at his residence 4½ miles east of Brownsville, Penn., in presence of a large number of citizens, at which time, and in order to give expression of their admiration of his fine pure bred stock, a meeting was organized by electing Mr. Wm. Dunaway President, Mr. Geo. Crafts Vice President, and Dr. W. L. Lafferty Secretary.

On motion the Chairman appointed the following committee to superintend the weighing of the fleeces of the different sheep, and also to examine his fine Short-Horned cattle, and Suffolk and Essex Swine.

Report of Committee.—The undersigned having superintended the weighing of the wool do report as follows:

	Weight of fleece—lbs.	*oz.*	
No. 1—French buck,	14	12	unwashed.
No. 2, do	15		"
No 3, do	9	10	washed.
No. 4. do	7	4	"
No. 1—French Ewe,	14	14	unwashed.
No. 2, do	10	4	washed,
No. 3, do	9	10	"
No. 4—French Ewe Lamb,	7	14	"
No. 5, do	8		"
No. 6, do	8	1	"
No. 7,* do	7		"
No. 8,* do	7	1	"
No. 9,† do	5	7	"
No. 10,† do	5	7	"
No. I—Spanish Buck's Fleece,	7	2	"
No. 2, do	6	11	"
No. 3, do	6	6	"
No. 4, do	6	7	"

Spanish Ewes—Fleeces Washed.

	lbs.	*oz.*		*lbs.*	*oz.*
No. 1,	6	12	No. 8,	5	8
No. 2,	5	2	No. 9,	5	
No. 3,	4	12	No. 10,	5	14
No. 4,	4		No. 11,	4	12
No. 5,	4	9	No. 12,	5	8
No. 6,	4	6	No. 13,	4	14
No. 7,	6		No. 14,	5	14

Jacob Woolf, Fayette Co., Pa.
Wm. Colvin, " " "
J. B. Patterson, " " " Com.
Wm. Hall, " " "
John Postlewaite, Burlington, Iowa.

The committee then proceeded to examine his fine Short-horned cattle, Suffolk and Essex swine, after which the following resolutions were read and adopted:

Resolved, that Gen. John S. Goe is entitled to the thanks of the community for his industry and perseverence in procuring, by a great outlay of means in the purchase, and breeding of the very valuable assortment of pure bred stock now to be seen on his farm, all of which are unsurpassed in western Pennsylvania.

Resolved that a copy of the proceedings of this meeting be sent to the editors of the different agricultural Journals and also to the different newspapers of this county. Wm. Dunaway, Pres't.
W. L. Lafferty, Sec'y.

The Garget—A Cure.

One of our best cows has just recovered from a severe attack of the garget. For two days we tried cold water washing, but it proved of no benefit. We also fed her garget root, without any benefit from that. We then tried washing the udder with very strong soapsuds, warm as I could bear my hand in it; two applications perfected an entire cure, and in a few days she returned to her full flow of milk. M. F. *Root, N. Y.*

Spanish Merino Sheep.

Messrs. Editors—You frequently give us descriptions of celebrated animals. I will give you a description of a few Spanish Merino sheep I bought last February of Julius Stickney of Shoreham, Addison Co., Vt., which were bred by him. One buck, one year old last April, one ewe, 3 years last April, and 6 two years last April, which ewes all have lambs.

They were shorn June 8th, unwashed, but the wool was very clean, as their fold was kept well littered with clean straw.

	lbs.	*oz.*		*lbs*
Buck's fleece,	13	8	Carcass	84½
Ewes, 3 year old, No. I,	8	5	"	86½
" " No. 2,	8	14	"	75½
" " No 3,	9	12	"	78
" " No. 4	10	9	"	69
" " No. 5,	11	10	"	76
" " No. 6,	9	12	"	81
" " No. 7,	7	10	"	67

If the ewes had not had lambs, I am of the opinion they would have averaged at least each one lb. more wool. All wool growers are well aware that ewes after lambing, become feverish, and lose more or less wool. No. 1, the 3 years old, must have lost at least two pounds of her wool. Mr. Stickney sheared a yearling ewe at the late sheep show held at Penn-Yan—carcass 52 lbs., and fleece 10 lbs. 12 oz. O. F. Marshal. *Wheeler, N. Y., June 19th.*

Sheep-Shearing at Middlebury, Vt.

Mr. A. L. Bingham's annual Sheep-Shearing came off at Middlebury, Vt., on the 17th and 18th of June, on the grounds of the Addison Co. Ag. Society. We copy from the *Middlebury Register:*

Eight vigorous young men plied the shears, while from time to time a Band from Rutland under the leadership of Mr. Farr discoursed some very good music. Among the shearers, B. F. Bingham, J. H. Canfield and Monroe Peck, seemed prominent in the rapidity and dexterity of their operations. The number of sheep sheared was 38 French Merino Ewes: the average weight of body about 76⅓ pounds and of fleece 17⅝ pounds; nine French Merino Bucks whose average weight of body was 94½ pounds and of fleece 19½ pounds; and 15 half-blood French and Spanish Ewes raised by T. B. Hawley of Cornwall, whose average weight of body was about 56 pounds and of fleece 13¼ lbs. All the sheep shorn were yearlings, and appeared in excellent order. We think the facts show that Mr. Bingham is entitled to a foremost position among the Agriculturists who have devoted themselves to this particular interest, and wish him abundant success.

On Wednesday, in connection with Bingham's Sheep Shearing, was a very fine exhibition of Horses, brought in from various parts, on invitation and offers of liberal premiums. In the morning the crowd came in from all quarters very much as at an old fashioned Commencement, and had the day held fair throughout, there is no doubt the collection of people and of horses would have been much larger than it was. Premiums had been offered for speed alone, and also for all points necessary to make the best horse. The latter were distributed to Gustavus A. Austin of Orwell, for Hambleton Horse, Henry Turrill of Shoreham, Henry Farnsworth of Crown Point, and Isaac Williamson of Middlebury, the latter for matched horses.

On the trial of Speed the premiums were awarded to Fordyce Nash of Middlebury, Henry Turrill, and Ira Wright of Weybridge. The horses taking these premiums were all Black Hawks.

The best time made, was by Mr. Henry Turrill's Black Hawk, which went his mile in three minutes. The horses were all untrained, and the track was heavy from the rain which had been falling nearly all day.

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* Nos. 7 and 8, twin lambs, 10½ months old.
† Nos. 9 and 10, " " 6 " "

The Great Sale at Mt. Fordham.

The sale of Col. L. G. MORRIS' high-bred stock came off, agreeably to advertisement, at Mount Fordham, on the 24th and 25th of June, and drew together the largest company we have ever witnessed on any similar occasion, including a large number of ladies. The forenoon of the first day was spent in the examination of the noble herds, including the large number of Short Horns not for sale. That having been accomplished, the company partook of a collation, for which their morning's ramble over the premises seemed to have given them a relish.

At about 3 o'clock, Col. J. M. MILLER, the well-known master of ceremonies on such occasions, called the company to the auctioneer's stand and commenced operations. The Short Horn Bulls were first brought to the stand, and twelve of them sold—the other four not being promptly bid for, were withdrawn. These, however, were all sold the next morning at private sale, at good prices—the whole 16 on the catalogue, and all but two of them calves and yearlings, averaging over $332 per head.

The Devon bulls and bull calves were next brought forward, for which the bidding was very spirited, the whole (seven) being sold at an average of over $214 each. The sale was then adjourned to 10 o'clock next morning.

We were unable to be present on the second day, but a correspondent says—"The second day of Col. MORRIS' great sale was more animated even than the first. The day itself was all that could be desired—pleasant and comfortable—and the company in the best of spirits—and bidding brisk and competition very spirited. The Devon cows were first sold and the prices for the Devons were larger than any public sale, we think, ever held in this country. The South Down sheep sold at very high prices—but they were of remarkable excellence, doing great credit to Col. MORRIS as a breeder, as did the Devon stock. The swine also brought good prices, and the sale was animated to the last." Every animal on the list, with the exception of two Devon cows (not breeding) and a few of the sheep, which for a similar reason were reserved for fattening, was sold, a complete list, with the purchasers and prices, we annex. "There has never been," says our correspondent from whom we have quoted above, "a sale in this county equaling this in prices for the same breed of animals. We are glad to announce this testimonial of approbation from the intelligent gentlemen who were present, of the value of the stock bred by Col. MORRIS at so much expense and with so much skill and care. He is entitled to it most richly, and we are gratified that in retiring as he now does from breeding Devons, South Down Sheep and Swine, he does so with a reasonable remuneration for his investment and care in breeding."

SHORT-HORN BULLS AND BULL CALVES.

1. Romeo, 6 yrs. old, imported, bred by Marquis of Exeter, Rebur & Kuiz. Lancaster, Ohio, ...	$600
2. Nissequag,* 2 yrs. old, W. B. Hill, Bridgeport, Ct., ...	225
3. Suffolk Hero,* yearling. George Clark, Springfield, N. Y., ...	325
4. Zouave,* yearling, William Kelley, Rhinebeck, N. Y., ...	300
5. Balconi,* yearling, Mr. Van Jngham, N. J., ...	160
6. Charlemagne,* yearling, Capt. Joseph Hilton, New-Scotland, N. Y., ...	245
7. Brawith's Boy,† yearling, Francis Morris, Throg's Neck, N. Y., ...	340
8. Marmion,* 9 mos., B. & C. S. Haines, Elizabeth, N. J., ...	500
9. Jacintha's Romeo, bred by Morris & Becar, John Hunter, Hunter's Island, N. Y., ...	400
10. Chester,* 8 mos., David Brooks. Avon, N. Y.	300
11. Orpheus,† 6 mos., J B. Crippen, Cold Water, Mich..	675
12. Belmont,* 4 mos., Amos F. Wood, Jefferson Co, N. Y., ...	375
13. Stanley,† 4 mos., Benjamin Whitlock, West Farms, N. Y.	210
14. Barrington,* 3 months, Joseph Orvis, Massena, N. Y., ...	150
15. King of Algiers,* 2 mos., Robert Gerdon, Paris, C. W., ...	400
16. Bailiff,† 1 mo., Joseph Orvis, Massena, N. Y., ...	110
	$5.315

DEVON BULLS AND CALVES.

1. Frank Quartly, 5 yrs. old. imported, bred by John Quartly, Col. B. P. Johnson. Albany	$350
2. Wawayanda, yearling, W. B Hill. Bridgeport. Ct.,	150
3. Crusader, yearling, George D. Parrish, Burlington, N. J., ...	105
4. Prince, yearling, Jacob Buckhart, Morrisania, N. Y., ...	150
5. Somerville, 8 mos., L. H. Colby, Groton, N. Y., ...	155
6. Byron, 7 months, Francis Morris, Throg's Neck, N Y., ...	250
7. Master Birthday, 4 mos., Richard Peters, Atlanta, Ga., ...	340
	$1.500

DEVON COWS AND HEIFERS.

1. Birthday, 12 yrs., imported, L. H. Colby, Groton,	$450
2. Princess, 9 yrs., imported, Francis Morris, Throg's Neck, N. Y., ...	340
3. Virtue, 8 yrs. imported, Francis Morris, ...	440
4. Edith, 8 years, imported, Joseph Hilton, New-Scotland, N. Y., ...	300
Birthday 2d, 3 years.—was set up at $250—(not breeding)—was withdrawn by Col. Morris to fatten—$300 was afterwards offered for her.	
5. Princess 2d, 3 yrs., Hon John Wentworth, Chicago, Ill, ...	275
6. Birthday 3d. 3 yrs., Francis Morris, Throg's Neck,	325
7. Princess 3d, 2 yrs, A. G. Summer. Columbia, S. C.,	250
8. Birthday 4th, 2 yrs., Francis Morris, Throg's Neck,	350
9. Princess 4th, yearling, John Wentworth. Chicago,	265
10. Rena, yearling, E D. Hunter, Pelham, N. Y., ...	230
11 Rachel, 5 mos., B. M. Whitlock, West Farms, ...	175
12. Princess 5th, 6 weeks old, A G. Summer, ...	150
13. Rouge, aged cow, Joseph Hilton, New-Scotland,	125
Fuchsia, 5 yrs.—not Breeding—was withdrawn to fatten.	
14. Ruth, 3 yrs, Joseph Hilton, New-Scotland, N. Y.,	225
15. Princess 6th, 4 weeks, Hon. A. B. Conger, Waldeberg, N Y., ...	110
16. Birthday 5th, 2 weeks, Francis Morris, ...	150
	$4,160

SOUTH DOWN RAMS.

1. Young York, 4 yrs., imported from Jonas Webb's Flock. Samuel Thorne, Thornedale, N. Y, ...	$400
2. A Two year old, L. F. Allen, Black Rock.	25
Yearlings, sired by Young York.	
3. John Bard, Tarrytown, N. Y., ...	140
4. S. O. Wilson, Norwalk, Ct., ...	175
5. E. Corning, Jr.. Albany, N. Y., ...	125
6 and 7. Mr. Sheldon. N. J, ...	220
8. Gen. Cadwallader, Philadelphia, Pa., ...	105
9. J. B. Crippen, Cold Water, Mich., ...	90
10. Wm. Summer, Columbia, S. C., ...	70
11. W. W. Glenn, Baltimore, Md., ...	55
12. Simeon Orr, Mississippi, ...	40
13. W. Furnistone, Easton, Pa., ...	30
14, 15, 16, 17. L. F. Allen, Black Rock, N. Y., ...	105
Ram Lambs.	
18. "Master Fordham," J. C. Taylor, Monmouth Co., N. J, ...	130
19. Simeon Orr, Mississippi, ...	40
20. Thomas P. Devereaux, Norfolk, Va., ...	35
21, 22. J. C. Taylor, Monmouth Co, N. J., ...	40
23, 24, 25, 26, 27. John Hunter, Westchester Co., N. Y.,	60
	$1,885

SOUTH DOWN EWES.

1—5. Prize Lugar Ewes, imported, S. Thorne, at $140, 150, 160, 140, 150, ...	$740
6. Jonas Webb Ewe, imported, J. C. Taylor, Monmouth Co., N J.	140
7—13. Jonas Webb Ewes, Samuel Thorne, $160, 130, 180. 140. 180, 105, 105, ...	1000
14. Jonas Webb Ewe, J. C. Taylor, ...	80
15, 16. Jonas Webb Ewes, Col. A. G. Summer, $100, $75, ...	175

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* Bred by N. J. Becar.

† Bred by L. G. Morris.

17—21. Jonas Webb Ewes, E. Corning, Jr., at $110 each,	550
22, 23. Bred by Col. Morris, J. C. Taylor, at $105 each,	210
24. Samuel Thorne,	110
25, 26. Simeon Orr, at $100 each	200
27—37. J C. Taylor—six at $25, and five at $20 each,	250
38, 39. Francis Morris, at $20 each,	40

Yearling Ewes.

40, 41. Gen. Cadwallader, Philadelphia, at $55	110
42, 43. Mr Sheldon, Monmouth Co., N. J., at $50,	100
44—49. J. B. Crippen, Cold Water, Mich., at $50,	300
50—55. S. O. Wilson, Norwalk, Ct., at $50,	300
56—59. Mr. Sheldon, N. J., at $45,	180

Ewe Lambs.

60, 61. J. H. Reid, Frederickton, N B., at $40,	80
62—74. Gen. Cadwallader, 2 at $40, 8 at $35, 3 at $20,	420
75—77. J. C. Taylor, N. J., at $25	75
78. Thomas P. Devereaux, Norfolk, Va.,	15
	$5,075

BERKSHIRE SWINE.

Imported Boars, Master Burke, R. Peters, and Sir Robert, D. B. Haight, at $35 each,	70
Young Boars, one to R. Peters and Joseph Hilton at $30—Mr. Wilmerding, Islip, L. I., $15—Simeon Orr and Mr. Hunter, at $20—L. F. Allen, $15.	160
Imported Sows, one to Mr. Furnistone, with 4 pigs, $75—one to Mr. Delaney, Va., $80—Mr. Hunter, $50,	205
Sows bred by Col. Morris, one to Samuel Thorne, $65 Mr. Hunter, $60— Thomas Ellison, $45—Simeon Orr, $30—Mr. Johnson, New-York, $25—two to Wm. Giles, Yonkers, $20 and $25—L F. Allen, $20,—two to David Pugh, New-Orleans, at $15—one (crippled.) Mr. Butterworth, $7.50,—Jacob Buckhart, $35,—R. Peters, $50	412,50
Pairs of Pigs. J. G. Holbrook, $27.50—Joseph Hilton, $24—A. B. Conger, $22.50—Wm. Giles, $21,	95
Three Sucking Pigs, A. B. Conger,	37.50
	$980

ESSEX SWINE.

Imported Boar "Fisher Hobbs," $27.50, and two sows, at $75 and $72.50 to A. B. Conger—one sow to John Hunter, $25—one to J. M. Miller, $25, and one to N. J. Becar, $55,	$280.00
Pigs, 8 mos old—two to George P. Nelson, Peekskill, at $25 each—one to John Jay, Bedford, $27.50,	77.50
	$357.50

SUMMARY.

16 Short-Horn Bulls and Bull Calves,	$5,315 00
7 Devon Bulls and Bull Calves	1,500 00
16 Devon Cows and Heifer Calves,	4.160.00
27 South Down Rams and Ram Lambs	1,885 00
78 South Down Ewes and Ewe Lambs,	5,075 00
Berkshire Swine,	980 00
Essex Swine,	357 50
	$19,859.50

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Culture of the Onion.

MESSRS. TUCKER & SON—I wish some information about the culture of onions. What quality of soil, what kind of manure is best adapted to the different varieties of soils? I have almost every variety of soil. When is the best time to plant? How much seed will plant an acre? Do you think it a profitable crop?

I have lime, ashes, muck, stable and barn-yard manure. What quantity of each kind of manure, for each kind of soil? W. S. O. *Greeneville, Tenn.*

A light but rich soil is generally preferred—although we have known some of the most successful cultivators to adopt a rather stiff soil. A dark colored loam appears to be best; heats soonest in spring. The manure should be applied in autumn, and fine stable manure or well rotted compost is best. Ashes is a good application, and repels insects. It must be of such a character as to mix well with the soil, and should be well harrowed to break it up fine, before turning under, or the lumps of manure will be very troublesome in hoeing. The quantity per acre must depend on circumstances, and its fineness. Of common yard manure, not more than six or seven large two-horse loads can be well mixed at a time. Double that quantity of compost may be applied. As early as practicable in spring, plow seven inches deep, and harrow thoroughly, and sow immediately in drills 14 inches apart. It is very important to have the crop in soon. Hoe on the first appearance of young weeds and keep perfectly clean. Five or six pounds of seed are required per acre; "sets," are only used for garden and not field crops. Onions are quite profitable where there is a good market, and pains are taken to secure the requisites for a good crop. Seven hundred bushels have been raised per acre—450 or 500 are more common with good cultivators.

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Hardy Varieties of Fruits.

MESSRS. EDITORS—Being a subscriber of your valuable Cultivator and Country Gentleman for some years past, I would like to get some information from you on fruit trees, climate, &c., as we have a colder and shorter season on the north side of this lake than in the state of New-York. I think it is the cause of failure of many of the fruit trees that are brought to this side from the states, especially the pear and peach trees. I would like you to name a few of the most suitable apple, pear, peach, and plum trees that would suit to plant here in Canada. Many persons here purchase the most popular kinds and plant them carefully, and when they do not come up to their expectation, they say, "O, there is no use in getting trees from the states to plant in Canada; they don't suit the climate, or else we do not get the kind advertised, or we are cheated by the nurserymen." Our natural fruit grows luxuriantly here; that is, the apple, plum, and cherry trees. Of course their quality is not No. 1. The black knot has destroyed nearly all the best plums here. The native plum is not touched with it any where that I have seen. I have seen many experiments tried to cure and keep it away, but none of them seem to answer. WILLIAM HOVEY. *Port Hope, C. W.*

Undoubtedly a great advantage would result from selecting the most *hardy* varieties of our best fruits; and by adopting this course in connection with good cultivation, we think our friends at Port Hope might succeed to their satisfaction. Actual trial is of course the best test of sorts; but as some guide, we would recommend our correspondent to examine the list published in the 24th number, present volume, of the Country Gentleman, of such varieties as have proved hardiest at the west. The climate there is quite different from that of Canada in several particulars, more especially in its greater and longer continued heat, but still there are many points of similarity.

Among *Apples*, we would especially recommend Red Astrachan, Duchess of Oldenburgh, St. Lawrence, Fameuse, Yellow Bellflower, Green Sweet, Esopus Spitzenburgh, Golden Russet. *Cherries*, any of the Dukes and Morellos, namely, Mayduke, Early Richmond, Belle de Choisy, Belle Magnifique, Carnation, Reine, Hortense, &c. Of *Plums*, the Lombard appears the hardiest by all odds, after which we would place the Bingham, Washington, Smiths' Orleans, and Schenectady Catherine.

We have never found any difficulty in keeping off the black knot, by cutting away freely all affected parts, provided the treatment is promptly and unremittingly applied. Of course, the trees need attention several times a year, but the labor is not half so great as to tend a patch of cabbage—and if half the tree is lopped off, it will grow again—which is much better than to let it wholly die of the knot.

Inquiries and Answers.

WORMS ON FRUIT TREES.—A., of Buffalo, wishes to know of "an effectual method of destroying *worms* that infest fruit trees." He has some fine plum and pear trees nearly destroyed by them, in spite of a number of remedies.

The term "*worms*" is usually applied to caterpillars and all other sorts of larvæ, of which we have a vast number of sorts. We cannot know what one our correspondent refers to. Some may require quite opposite treatment from others. But any thing that will *kill* them, will be effectual so far as it goes, and the more easily or rapidly they are killed, the better the remedy. There are numerous remedies for insects in general, such as dusting with various offensive substances, assailing them with fœtid odors, &c., &c. But of all remedies proposed, those should be selected as best, whose essential character consists in *death* to the insect—all others are usually uncertain and inefficient. We cannot go more into detail, without knowing the insect referred to.

BRINCKLE'S ORANGE RASPBERRY.—Can you give me in the columns of the Country Gentleman, a description of Brinckle's Orange Rasberry? I once saw them highly recommended. I ordered some from a nursery. They fruited last summer. The fruit, a small sized, dark red, conical berry, with an indifferent flavor. L. A. *Whitby, C. W.* [Our correspondent received a spurious and worthless sort. The *Orange* is a large, ovate, handsome berry, of a light orange color, and of excellent flavor. The bark is vigorous and productive.]

DISTANCE FOR APPLE TREES IN NURSERY.—Last fall I planted some pomace with the intention of raising a nursery. I wish to know how far the rows should be apart and how far apart in the row. J. H. B. *Newton, Ct.* [If for a nursery of apple trees, as we suppose our correspondent intends, the trees should be planted in rows four feet apart, and the trees 8 inches to one foot in the row. If the trees are for setting in orchards when 6 or 7 feet high, 8 inches, or even 6 inches, will not be too near in the row; but if they are to remain till 8 or 10 feet high, the distance should be at least one foot.]

TILE MACHINE.—Can you inform me whether the press for making tile is patented or not? If not, can you give instructions through your paper that will enable a mechanic to construct one? We have no machines in this neighborhood, and the transportation costs so much that there are none in the market. Please answer soon, as there is a potter in this place who wishes to manufacture them, if he can do so at a fair profit. PHILO NORTON. *Connellsville, Pa.* [We think they are not patented; but the cheapest and best way for your potter to procure one, would be to order it from a manufacturer who understands the business, and whose machine could be relied on. They are made by PRATT & BROTHER, Canandaigua, N. Y.]

THE CHERRY-BIRD.—If your correspondent H. H. B., will procure saplings a few feet taller than his cherry trees, and remove all the branches from them except a few at the top, and shorten those to about one foot in length, and secure a sapling through each tree, as near the center as possible, having the sapling project about three feet above the top of the tree, he will be able to shoot the cherry birds without injury to his trees. But I hope he will not shoot either the robins or the woodpeckers, as I think the insects they destroy more than a compensation for the cherries they eat. L. A.

MARL.—H. P. BARNUM of Ashley Falls, Mass., wishes information in relation to the value of two beds of marl, discovered on his farm. Like shell marl generally, it is grayish white, "like ashes and plaster mixed," and effervesces violently with strong vinegar. It is no doubt good marl, and 50 to 2 or 300 bushels per acre may be useful to his land, in connexion with manuring. Marl or lime (both operate in precisely the same way) has in some instances greatly increased the value of thin or worn-out lands, and in many other instances has produced no sensible benefit. Our correspondent must make the trial, remembering that its effects, although more lasting, are not nearly so striking as those of common manure, and cannot be ascertained with any satisfaction without accurately *measuring* the results.

THE MICHIGAN OR DOUBLE PLOW.—In reply to the inquiry in relation to this plow, in our last issue, we may state that one of the editors of this paper has used this plow to some extent for several years past, with marked results. The plow used was of the largest size, requiring three yoke of oxen to draw it satisfactorily. In old pasture, the average depth, by measurement from the grass side of the furrow, was eleven inches and a half. On the side of the freshly-turned earth, which was of course thrown up loosely, the depth was 18 to 20 inches. The sod was completely hidden by the mellow lower earth thrown upon it, so that it could be harrowed into a perfectly clean and mellow surface—and admitting, if desired, a coating of manure to be turned in near the surface by means of the gang-plow.

The growth of young trees on this plowed land, greatly exceeded anything of the kind met with elsewhere, on similar soil.

The plow must be a good one, and be properly guaged and managed, or it will probably be pronounced a failure. Its management is, however, quickly understood, and is not more difficult than that of other plows.

INQUIRY.—Is there any cure for wingalls on horses? I have a young one, getting them on all his legs. An old English horse book says they may be cured by opening with a lancet, pressing out the gummy matter, and then bandaging for a time. If any one of your readers has tried this, will he please report. The same horse has small knots like warts, about the size of a chestnut, on his breast. They were caused by pressure of the collar. Would it be safe or useful to apply muriatic acid to these? D. E. E.

PLAN FOR POULTRY HOUSE WANTED.—Can you or any of your correspondents, furnish me with the plan of a poultry house for my family of Dorkings, combining warmth in winter, coolness in summer, light and ventilation, and last but not least, shall be cheap, of a size to contain from ten to fifteen fowls. Also, what sized yard must I have, so that fowls may preserve their health, during the season when they would naturally require to have a range sufficient to enable them to procure worms and insects. AN OTSEGO BOY.

STUMP PULLERS.—The Country Gentleman of the 12th June is before me, and I notice an inquiry in relation to stump machines, from one who desires to know where they are manufactured. I will therefore announce that a regular stump machine manufactory is established in Owego, Tioga Co., N. Y., where machines of different kinds are constantly kept on hand, and where large numbers are being shipped to different parts of the country every year. R. H. HALL.

THE IVY.—Can you inform me through the Country Gentleman, where I can obtain some cuttings or roots of the Ivy? The English Ivy is the kind I want, with its round leaf, climbing over the house in its dark evergreen. J. A. PAIN. *Clyde, N. Y.* [You can procure it, we doubt not, of FROST & Co., or ELWANGER & BARRY, Rochester.]

POLAND HENS.—Can you inform me where I can purchase a good pair of Black Poland hens? Doubtless some of your subscribers have them. W. R. H. [We presume you can get them of Wm. Hurst at the Alms-house, or of E. E. Platt or E. A. Wendell, or half a dozen others, in this city.]

Garden Moles.—Will you inform me through the columns of your paper, if there is any method of keeping moles out of one's garden. I have tried various methods, but have, as yet, found none which has afforded any relief. There are a great many of this species of vermin in our neighborhood, and their depredations are, to say the least, very annoying. R. S. W. *New-York.* [Having had no experience with "moles," we are under the necessity of requesting such of our correspondents as have routed them successfully, to give us the method.]

Transplanting Evergreens, Pear Stocks, &c.—What is the proper time for and manner of transplanting evergreen forest trees, Spruce, Balsam, Pine, &c., and what sized trees would it be best to take, transplanting from swamps where they grow naturally, to open ground and an entirely different soil?

How does the common thorn apple answer as a stock on which to graft the pear, and how would the pear answer as a stock for apples? W. B. *Louisville, N. Y.* [Spring is the best time for setting out evergreens—although success sometimes attends the operation if performed in summer, at a moist time, at a period of cessation in growth, and with plenty of earth on the roots. The great secret for success is to remove and carry with the roots a large portion of the earth in which they grew,—enough, as a general rule, to hold them against the wind without staking. Some evergreens, as the balsam, for example, will often live without this precaution, provided the roots are not allowed to be exposed a moment to the dry air—plunging them immediately into wet moss or wet straw, till mudded and heeled-in or planted. Others, as white pine, will never grow without a mass of earth taken with the roots; and with it, they will *always* succeed. Five or six feet high is a good size; although with extra pains we have succeeded well with trees twelve feet high.

The thorn sometimes answers well for some sorts of pears, but we cannot recommend it. The pear for apple, may prevent the attacks of the borer, which does not often attack the pear.]

Mulching.—I have been mulching some pear trees that I have, to keep the ground moist and in good condition. I used straw, but since using it, I have been somewhat afraid that it might serve as a nest for mice, and encourage them to girdle the trees. Is there any danger, at any rate before winter? As the "Country Gentleman" is expected to know everything, I come to you for advice. A Subscriber. *Castleton, N. Y., July* 4, 1856. [There is great danger of straw-mulching proving a harbor for mice on the approach of winter. It must be removed in autumn as soon as hot weather ceases, and growth is at an end; and it would be safer in all cases if a small smooth mound of fresh earth be raised a few inches around the foot of the trunk, and which is not to be covered with the straw.]

The Rose Bug.—Is there any efficient protection against the ravages of *rose bugs?* They attack cherry trees and grape vines, destroying half the fruit on the former, and *all* the fruit-blossoms on the latter, and greatly injuring the foliage of both. I have used a strong solution of whale-oil soap, a decoction of quassia, a strong tea of red-peppers, and have fastened to the trellis tufts of cotton saturated with spirits of turpentine, but all without effect. I have picked *thousands* from a single grape vine, giving over my efforts only after every blossom had been destroyed, while the rose bugs were more numerous than ever. What can be done *next* year, that will save the grapes? K. S. *Vernon, Conn., July* 10, 1856. [We hope soon to give a paper on the Rose Bug from Dr. Fitch. In the meantime if any of our readers can enlighten our correspondent we shall be glad to hear from them.]

Draining Small Hollows.—In answer to an inquiry, in the Co. Gent. of 12th June, from W. J. P., in reference to draining a wet place surrounded by dry soil, I would advise underground drains to lead off in the dry soil some little distance, two or four rods, as may appear best, according to the amount of water to be drained off. It cannot do the dry land any harm, but may do it good, unless it be in a very wet time—or at least such has been my experience, and it has done well. Dig quite across the wet land a good depth. A Subscriber.

Yellow Clover.—*J. W. Traver.* The plant you left at this office for the name, is the Yellow Clover, *Trifolium procumbens.* It is not worth cultivating.

Asparagus and Cranberries.—F. C., *West Meriden, Ct.* The soil for asparagus should be spaded three spades deep, and thoroughly pulverised and mixed with well rotted dung. Make your beds four feet wide, and place your plants one foot apart each way in the bed. This must be done in the spring, and the plants should not be cut for use until the second season. The roots can be procured of almost every nurseryman. You can get cranberry plants of F. Trowbridge, New-Haven, Ct., who will furnish directions for their culture. We can furnish you the Cultivator or 1853 and 54—also the Register for 1855.

Raspberry Vinegar.—*B. G. F., Gerry, N. Y.* The following is a good receipt for making raspberry syrup or vinegar. The vessels used in making or preserving it, should be China or glass. Mixed with water, it is one of the most pleasant as well as wholesome summer drinks:

Put one quart of best vinegar, (white is preferable) to two quarts of raspberries not over ripe. Let them steep in the vinegar twenty-four-hours; then strain them through a sieve without pressing the fruit, and pour the liquor so strained on two quarts more of raspberries. In twenty-four hours more strain it off again, and to a pint of juice put one pound and a half of very fine loaf sugar. Put the above into a jar and the jar into a pan of warm water, and let it stand till all the sugar is melted, taking off the scum as it rises; then take the jar from the warm water, and when cold bottle off for use.

New Uses of Beets.—A new species of manufacture has just been brought into existence in France, viz., the fabrication of paste board or *papier mache*, from the pulp of beet root. This fabrication is already carried on to some extent in the commune of Toulain, and can be employed, it is said, with advantage in ornaments, tea-trays, and other such articles. A new alimentary production has, also, just been invented, made from beet root. It very closely resembles coffee and has received the name of *betterave torrefiée* (scorched beet.) When mixed in equal proportions with West India coffee, the taste is by some persons thought more agreeable than that of the genuine article. It is thought to be less heating, and we would very confidently expect that it would be greatly less stimulating and injurious to the nervous system. Let coffee drinkers raise a few beets in their gardens and make trial of such a mixture. As a minor recommendation it is said that coffee made from the mixture of scorched beet and genuine coffee, does not require above half the usual quantity of sugar.

Agricultural Progress in France.—The Emperor of the French does some wise things. He has had much to do in getting up a very extensive Ag. Exhibition, which was closed in June. He has bought him a large farm, and has purchased some of the excellent stock to which prizes had been awarded at the recent exhibition. Another wise thing done by the Emperor, is his recommendation of a large appropriation of public money to aid and encourage draining throughout France.

Notes for the Month.

NEW-YORK STATE AGRICULTURAL COLLEGE.—A meeting of the Trustees was held at Ovid, the 12th of June. Present—Hon. John A. King, Chairman of the Board, Hon. William Kelly, Hon. Henry Wager, Hon. William Buell, Joel W. Bacon, Esq., Abraham A. Post, Esq., B. P. Johnson, Esq.

Mr. King was re-elected Chairman for this year.

Vacancies in the Board, occasioned by the death of John Delafield, resignation as Trustee and Treasurer of N. B. Kidder, and of Tallmadge Delafield as Trustee, were supplied by the election as Trustees of Hon. Josiah B. Williams, of Ithaca, Rev. Amos Brown, of Ovid, Hon. Samuel Cheever, of Waterford, Saratoga Co. Joel W. Bacon, Esq., of Waterloo, was elected Treasurer in place of Mr. Kidder, resigned, and Rev. Amos Brown, Secretary, in place of Mr. Bacon, elected Treasurer. Mr. Bacon, Mr. Brown, and N. P. Ellis, of Ovid, were appointed a Committee to obtain subscriptions—and were desired to obtain special subscriptions for the endowment of the *Delafield Professorship of Agricultural Chemistry.*

Hon John A. King, from a Committee consisting of himself, J. W. Bacon and B. P. Johnson, to examine such farms as might be deemed suited for the College, reported that they had devoted two days to the examination of upwards of twenty farms, situate mostly in the town of Ovid—a description of each of which the Committee presented to the Board, and the report was laid upon the table for future consideration.

The Committee on subscriptions reported the amount of subscriptions which had been reduced to notes in form to secure the appropriation from the State; but as they had not time to complete the work, the Board postponed the selection of a farm and the election of officers for the College until a future meeting, to be called for that purpose.

Rev. Mr. Brown was requested by the Board to devote the ensuing six months to obtaining subscriptions and calling the attention of the public to the importance of the institution.

The thanks of the Board were tendered to Mr. Brown for his able and successful efforts in securing the appropriation from the Legislature of $40,000 towards the endowment of the College—which renders its establishment in full and successful operation at an early day no longer a matter of question.

The subscription to the College already exceeds $40,000, and will be increased to a much larger amount. The people of Seneca county, especially the citizens of the town of Ovid, have done nobly, and it can scarcely be a matter of doubt that farmers and friends of the cause, in other sections of the State, will esteem it a privilege to contribute to the endowment of this State institution, so as to secure its advantages to every child of the farmers and mechanics of the State who may desire it.

WOOL.—Mr. ELIAS WILLIAMS of Canaan Four Corners, N. Y., has sent us fourteen samples of wool from a cross between Saxon and Merino sheep. They are very handsome specimens. The best way to ascertain the price of such wool, would be to enclose samples to H. BLANCHARD & Co., Wool Depot, Hartford, Ct.

NEW WHEAT.—The sample of wheat which accompanied the annexed letter, is a very fine one—the berry plump and well filled, and shows that good wheat can be grown in Southern Illinois.

Chicago, Ill., June 27, 1856.

By express I send you sample of new Wheat, of the variety known as "May Wheat," grown in the high timber lands of Southern Illinois, 35 miles north of Cairo, north latitude 37 deg. and 30 min. The crop is now in, and though the yield is not large, yet the quality is very superior. R. FORSYTH, *Genl. Fght. Agt. I. C. Railroad.*

☞ Breeders of Devons will not fail to notice the advertisement of the fine herd of Devon Cattle, bred and imported by R. H. VAN RENSSELAER, Esq. of Otsego county, the whole of which are to be sold on the last day of the State Fair at Watertown. The herd is one of the best in the country.

☞ We have received the Catalogue of Short-Horn Cattle, Suffolk Swine, Poultry, Rabbits, &c., owned and bred by THOMAS GOULD of Glen Mailen, near Aurora, Cayuga Co., N. Y.

THE NEW HAMPSHIRE STATE FAIR for this year, is to be held at Concord, Oct. 8, 9, 10. The Address will be delivered by Hon. GEO. P. MARSH, of Burlington, Vt.

KENTUCKY STATE FAIR.—The first Fair of the newly organized State Ag. Society of Kentucky, is to be held on the grounds of the Bourbon Co. Society at Paris, commencing on the 30th of Sept. The grounds are to be enlarged and additional buildings erected, and every arrangement necessary for a magnificent exhibition will be made.

☞ JONAS WEBB of Babraham, England, the world renowned breeder of South Down Sheep, attended the late universal exhibition of domestic animals at Paris, with specimens of his sheep, where another link was of course added to his chain of medals. He was dressed in a peasant's blouse, under which he wore a magnificent chain, reaching to his girdle. Each link of the chain consisted of a gold medal, received by the owner at some agricultural fair or other, as a prize for the excellence of his South Downs.

THE USE OF GUANO AND OTHER COMMERCIAL MANURES ON THE INCREASE.—By official returns of the Board of Trade for the first three months of the current year, it appears that in Great Britain the imports of guano, bones, &c., are nearly 100 per cent. greater than during the first three months of 1855. During the first three months of these two years, the imports were, of

	1855.	1856.
Guano, ...	35,570 tons.	62,265 tons.
Bones of Animals, ...	5,157 "	9,741 "

We put this fact upon record in our columns as an item of information of some present interest, (which may also be useful for future reference,) and for the sake of some inferences deducible from it. Among these we may reckon this as one of the most important—that the advantages accruing from the use of guano and other concentrated or commercial manures are appreciated more generally every year among our agricultural brethren on the other side of the Atlantic.

SUPERIOR FAT CATTLE.—A drove of seventy-five head of beeves, the best lot we have seen this season, passed through this city on their way to New-York, on Monday. They were all from the farm of SAMUEL H. CLAY of Bourbon county, Ky.

LARGE EGG.—Mr. F. A. IRELAND of Watervleit, has shown us an egg from a hen 14 months old, which weighs 4 ounces, and measures 7 7-8 in. in circumference lengthwise, and 6 1-4 in. in breadth.

A PREMIUM CROP OF HAY.—The reports which were prevalent a year or two ago, about twenty ton crops of hay from one acre, in Great Britain and Italy, passed the *very utmost limits* of credibility. When we were subsequently told that the acre was one-fourth larger than the English or statute acre, or 1 27-100 acre, that the grass was Italian rye-grass, that the land was dressed often with liquid manure, that in this way and by the natural humidity of the climate, the growth was so luxuriant as to admit of seven or eight cuttings in the course of a year, as on the irrigated meadows of Lombardy, and that the hay itself had never been weighed but only estimated from the weight of grass on a certain proportion of an acre—then our incredulity and surprise were moderated to a certain extent. From some of the remarks which were called forth by the reports alluded to, we are disposed to think that if any farmer were to assert that he had obtained four and a half tons of hay from an acre in any of our Northern, Middle, or Western States, he would be suspected of "stretching it" a little. That this has been done, however, we learn from a late No. of the *Ohio Farmer*, in which it is stated that the premium crop of hay last year, in Summit county, was raised by D. E. Fenn, of Talmadge, and the yield per acre amounted to 4 tons and 1,315 lbs. of timothy and red-top.

Exhibition of the United States Agricultural Society.—We have received the Prize List for the fourth national exhibition by this Society, which, it will be remembered, is to be held at Philadelphia on the 7th—11th of Oct. next. The Premiums offered amount to over $12,000. The Premiums on Cattle amount to $4,345. The first is a sweepstakes premium of $200, for the best bull and four cows or heifers of any breed. There are five prizes of $100 each, for the best bull and four cows or heifers, of the Short-Horn, Devon, Ayrshire, Hereford and Alderney breeds, and a prize of $50 for the best four grade or common cows. The balance of the sum is divided among the different breeds in the usual classes, including working oxen and fat cattle, the first prize for bulls and cows being in all cases, $100, and the second, $50. The premiums on Horses amount to $4,995—on Sheep, to $870—on Swine, to $445—on Poultry, to $272—on Field Crops, to $615—on Seeds and Vegetables, $142—on Fruits, to $570—on Native Wines, to $120—on Agricultural Implements, to $400.

Premium Lists and Regulations can be had we presume, by addressing the President, the Hon. Marshall P. Wilder, Boston, or the Assistant Secretary, Mr. John M'Gowan, Philadelphia.

Chicory.—We are pleased to learn that Mr. D. D. T. Moore, is trying an experiment in the culture of chicory. He ordered the seed from England last winter, and the crop now looks and promises well. Should it equal his expectations, it will prove a profitable crop.

Herefords.—George Clark, Esq., of Springfield, Otsego county, for some years an extensive breeder of Hereford cattle, has recently purchased of Mr. Goodell, of Brattleboro', Vt., the very superior Hereford bull "Cronkill," imported a year or two since we believe by Mr. Dowley, of Brattleboro'. The price paid for him, $800.

☞ There seems to be something of a contest in relation to the location of the new State Ag. College, one portion desiring it to be located in the village of Ovid, and the other, preferring Sheldrake Point, on the western bank of Cayuga Lake, as the location. The subject is in good hands, who will canvass the matter thoroughly before deciding the question.

American Horses for England.—R. Ten Broeck, Esq, of Lexington, Ky., went out in the steamer Asia, taking with him three of his best horses, (Lecomte, Prior, and the filly Prioress,) to test their powers with the English race horse on English ground. It is contended by English turfmen that the horse in England has attained the maximum of speed, and that no foreign bred horses are equal to them. In order to solve this problem, Mr. Ten Broeck, confident of the powers of the American bred horse, goes to England, and time will tell the result.

Winter Wheat in New-Hampshire.—Extract of a letter from Levi Bartlett, Esq., of Warner: "Upon farther inquiry, I find the amount of winter wheat sown here last autumn, was much larger than I thought for. Over 40 bushels of seed was sown in one small school district. In others, nearly as much—nearly all of which is looking finely. Should it do as well as it now promises, we may set it down as a fact that we can grow winter wheat in New-Hampshire as well as they can "out West."

Large Cattle Sales.—Harness Renick's sale of Short-Horns took place at Darbyville, Ohio, on the 19th of June. Six males were sold, averaging about $331 each—Imported "Thornberry" selling to Messrs. Kirkpatrick & Co., Fayette Co, for $1000. Eighteen cows and heifers were sold for $4,395—averaging $244 each.

There was a large sale of Short-Horns, belonging to John Curd, Esq., a well-known breeder of Lexington, Ky., on the 24th of June, consisting of twenty-four cows and heifers, which sold for $7,567, being an average of $315.25 per head. These sales show that there is no falling off in the price of good Short-Horns.

A Great Crop of Corn.—Premium crops of Indian Corn, in New-York, the New England States, and the more northerly of the Western States, seldom exceed 100 bushels to an acre. They more frequently fall below than rise above this amount. In our volumes of last year will be found the statement of Hon. J. W. Colburne, of Vermont, to the State Ag. Society's Committee on Farm Crops, giving an account of the mode of management adopted in raising a crop of 113¾ bushels per acre, to which the first premium of the Society was awarded. But, as we have said, in the States named there are more premium crops under than over 100 bushels. In Ohio and Kentucky much larger crops have been reported. For example, the premium crop of Indian Corn last year, (1855,) in Ohio, is reported to have amounted to one hundred and sixty-two bushels per acre.

Vice's Wind Mill.—The Rochester Daily Advertiser of July 2, says: "It gives us much pleasure to announce the success of the Prairie Flouring Mills, propelled by wind, under the patent of our old townsman, T. C. Vice. Mr. Wm. D. Snow having purchased half the patent, has been industriously engaged on the Western prairies in organizing companies for the erection of flour mills of two run of stone. The erection of one at Bromfield, Illinois, has fully tested their utility, and visited by hundreds. It is just what is required for that section, and contracts for thirty-one mills, at $6,000 each, have been sealed, to be finished at January next. Several are also being erected in Canada. Several of our Rochester mechanics are engaged in their construction in Illinois, Wisconsin, Iowa, and Minnesota.

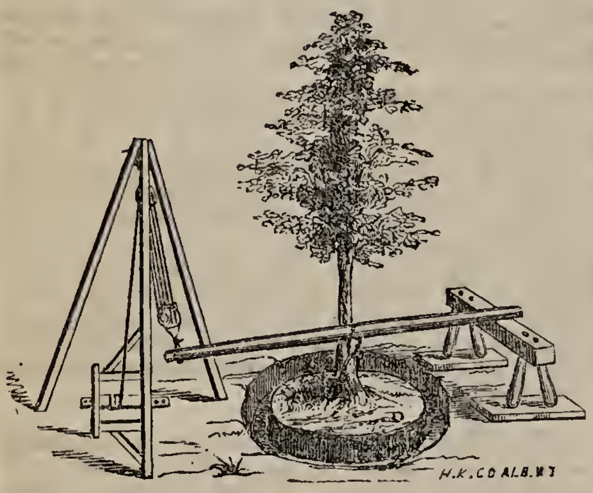
Insects.—Before reading the valuable communications of Dr. Fitch, in the Co. Gent., I discovered some cocoons on my young apple trees; some I picked off, and left some remaining. Since reading that, about 1st May, I have examined those I left, and could find no eggs. What I wish to know, is where the insect goes after its first hatch, as I can find no worms on the trees. J. H. B. *Newtown, Ct., May* 28, 1856.

Sheep Husbandry.—The time of sheep shearing is come, and as usual we are obliged, to sell to agents, buying on commission, who have a certain per cent. on the number of pounds bought, and are restricted to a certain price, above which they must not pay. To make as much as possible, they buy all they can without making the proper discrimination. This is encouraging to the growers of coarse wool, and discouraging to those who have fine wooled sheep. Consequently the wool in Yates county is not as fine as formerly. Every body is aiming to keep coarse heavy fleeced sheep, and wisely because they are the most profitable. S. B. Buckley.

Splitting Boulders.—Some of your correspondents recommend burning wood upon them. Wood is worth but a dollar a cord with us, and yet I should, as a matter of economy, prefer blasting them. M. F.

Moving Large Trees.

[As a general rule, it is much better to transplant small or medium sized trees than large ones. The same labor spent in deepening and enriching the soil, would often make a larger, handsomer, and more luxuriant tree of the smaller, at the expiration of ten years. But there are special reasons often occurring, which render it very desirable to remove large specimens, not the least of which is to secure a temporary shade for a new and bleak residence, until something better grows. Other cases are mentioned by our correspondent, whose mode has several advantages to recommend it, although some trees would be sensitive of the wound which it is necessary to make, while with others it would be a matter of little importance.]



In the Country Gentleman, for March 20th, F. C. R., of Tariffville, has made several inquiries in regard to moving trees in winter.

The preceding figure represents the apparatus, which I use for such purposes, attached to a tree, about to be removed. It consists of a set of shears, about sixteen feet long, with a windlass attached to the single shear, around which the slack rope of the tackles is wound, when the machine is worked. A good stiff pole or stick of timber, twelve or fourteen feet long, is fastened to the tree, with a large clevis and chain, by boring a hole through the tree, for the bolt, as near to the ground as can be; this hole must be filled again with grafting wax, or pitch, after the tree is transplanted. One end of this pole is supported by a strong bench, three feet high, standing on plank to prevent its sinking into the ground. With the tackles hitched to the other end of the pole, the tree is lifted high enough to allow a sleigh, or stone boat, to be backed under it to receive the tree with the ball of earth.

When trees are to be removed, my practice is to dig a trench about them, about eight or ten inches deep, or more, according to the size of the tree and extent of the roots. This should be done *when the ground is not frozen;* and if done one year before the tree is removed, the tree will be much better prepared for its removal, by sending out numerous spongioles, which will hold a greater amount of earth in the ball, which is lifted with the tree. In the winter, the snow and leaves should be cleared away from such trees, so that the ball of earth may freeze thoroughly.

The next thing of first importance is, *to have the holes dug before a tree is brought on to the ground.* Even if they are filled with snow, that is readily removed when a tree is ready to be placed in them. Holes should always be dug sufficiently large to receive the ball of earth, without resting on the edges; and care should be exercised to have the trees no deeper in the soil than they naturally grow. Trees of considerable height should be stayed up with four guy wires, to prevent the winds from blowing them over. These guy wires should be fastened to the tree with small staples driven into the tree, and to stakes driven into the ground. When trees are small we may dispense with the pole and bench, and hitch the tackle directly to the tree; and in *unloading* trees, I seldom use the pole and bench.

A few years since I removed several evergreens from the forest, from twenty to thirty feet in height, and four to six inches in diameter; and those which were unloaded directly into holes already prepared, are now alive; while all of those which were unloaded on the north side of my house, and the roots covered with moss and straw until the ground thawed—as I have seen recommended in some agricultural papers—died the same season.

When the machine is hitched to a tree, and we have lifted on it almost enough to start it, we should take a lever, or crowbar, and loosen the ball of earth a little, all around the trench. This precaution will sometimes prevent the ball of earth from breaking, and the breaking of some part of the machine also.

With this machine I have often gone two miles from home, and returned with a large tree and ball of earth six or seven feet in diameter and eight inches in thickness, loading and unloading *entirely alone*, in two hours and a half. I mention this fact to show the efficiency of the machine; and that it may be handled and worked advantageously by one man.

Instances are of very common occurrence, where it is necessary to remove valuable trees in the summer or late in the spring, when we cannot avail ourselves of a frozen ball of earth. When I lived with my father, about 17 years of age, a valuable pear tree must be removed in order to make room for the woodhouse. It was so old and large that everyone thought it absurd to attempt to transplant it, with any expectation of its living. We had eaten too many delicious pears from that tree to see it cut down, which was the orders; but, in laudable obstinacy, we took it up in the middle of June and transplanted it; and it bore pears the same year, and is a valuable bearer even now.

Last season, a neighbor of mine in making room for his buildings, cut down a pear tree for which, he said, he would have willingly given twenty-five dollars, could it have been transplanted with safety. We assured him that we would have removed it, warranting it to live and do well for the future, for one-half that sum. How would you have done it? I will answer as I then told him; and the answer will show how almost any tree of ordinary size may be removed with success, unless the soil is very loose and porous.

Dig a trench around the tree from six to ten feet in diameter—according to the size of the tree and extent of the roots—and about a foot deep. Then fasten small wires to the ends of the roots where they are cut off in the ball of earth; and from thence to the body of the tree, 8 or 9 feet above the ground. When there are but few roots, the lower ends of wires may be fastened to little pins, driven into the ball of earth. These wires will aid greatly in raising the earth with the tree, and prevent the ball falling to pieces. Now raise it carefully; and plant it in a hole in which six inches in depth of rich, light soil is mixed with water, about as thin as common mortar. If the operation be skillfully performed, the tree will suffer no inconvenience. S. Edwards Todd. *Lake Ridge, Tompkins Co., N. Y.*

Indian Pudding.

Take eight table spoonfuls of fine Indian meal; pour into it one quart of boiling milk, with six eggs, one nutmeg, and six ounces of butter. Bake this quantity in three dishes.

On Fish Manures.

WRITTEN FOR THE CO. GENT. BY S. W. JOHNSON.

There are various agencies at work in nature, which tend to remove from the soil of the land, its soluble ingredients,—those which render it fertile—and carry them down into the sea. Rains are the most universally active in this work, and not only do they take up soluble matters, but sweep away mechanically, enormous quantities of the finest and richest parts of the soil from the field into the rivulet, thence to the brook, the river, and finally the ocean.

The other cause of the loss of matters that would enrich the soil, is found in the continual transport of food from the inland country, to feed the dwellers of cities, nearly all the waste of which is speedily washed into the rivers or sea; not a thousandth part being ever returned to fertilize the farms whence it originally came.

This latter waste has caused much talk, and some attempts have been made towards remedying it, but with very partial success. The question has latterly presented itself, whether it is not better, i. e., cheaper, to give these matters over to the sea without complaining, and indemnify ourselves by making reprisals of more valuable materials. Possibly we may be the gainers by giving to it unreservedly our city refuse, and taking fish in exchange! Certainly the practical difficulties in economizing the night soil of large towns suggests this inquiry.

But it were better to save all we can from passing into the sea, and at the same time, to win from it, what it can be made to yield for fertilizing the land.

Guano is an indirect contribution of the ocean to Agriculture. The sea fowl manufacture it from the fish with which the sea is everywhere teeming.

The idea of making the accomplishment of the same purpose a branch of human industry is not old. How promising it appears to be, we may understand by contemplating the quantity and cheapness of the raw material at our disposal, and the resources which modern science and capital have at command.

I will only offer a specimen of what statistics show as to the supplies of fish which the ocean may yield. According to an article in the 9th vol. of the last (8th) edition of the Encyclopedia Brittanica, the quantity of *white herrings* caught and dressed in Scotland and the Isle of Man, amounted in 1853, to 908,800 bbls.; in 1854, to 740,351 bbls. In England and Scotland together, in 1849, an extra season, 1,151,979 bbls. were disposed of as food.

From the information I have been able to gather, it appears that the first attempt to manufacture a portable manure from fish, was made at New Haven, Connecticut, as early as 1849, by Mr. LEWIS. The white-fish, *Clupea menhaden*, was employed, and after a good deal of experimenting, a quantity of the manure was sent into market, but from causes unknown to me, the enterprise was discontinued. Analyses made in this laboratory at the time, under the direction of Prof. NORTON, represent the amount of nitrogen in the product as high as 10.23 per cent., equal to 12.42 per cent. ammonia.

The second effort was made by DE MOLON, a Frenchman, in 1851 or 1852.

Afterward, PETTIT and GREEN, in England, engaged in the manufacture, and within the last two years we hear of numerous successful efforts in the same direction.

Two methods are employed in the preparations. The simplest, that of DE MOLON, and I believe also that employed in the New-Haven manufactory, consists merely in boiling or steaming the fish, until they are disintegrated to a pasty mass; then pressing them to separate the oil, which itself is economized; then drying the cake left after this operation in a current of hot air, and finally grinding it to powder.

PETTIT's patent process involves the use of sulphuric acid, which is added to the fresh fish, and has the same effect as steam in destroying their consistence. After treatment with sulphuric acid, the mass is pressed and dried as above.

DE MOLON has at present an establishment on the island Kerpon near the Straits of Bell-Isle, which was fitted up to employ 150 workmen, and sends yearly to France, large quantities of *Tangrum*, as the product is called. This name seems to be applied to the manure prepared from herrings, or herring refuse.

At Concarneau (Finistère) is also a large manufactory of fish-manure, in which in 1854, the labor of 6 men and 10 children produced daily for 200 days in the year, 8 to 10,000 lbs. of dry manure, from 36 to 40,000 lbs. of fish or fish refuse. About half the supply of the raw material, is the refuse of the Sardine fisheries. Arrangements are making to increase the product to 8,000 tons yearly. This manure is sold at $35.00 per ton. It is represented to contain 12 per cent of nitrogen, equal to 14½ of ammonia, and 6 per cent of phosphoric acid; and is considered much cheaper than Peruvian guano.

According to an article in the Practical Mechanics' Journal, Nov., 1853, the cost of making 50 tons of fish manure by Pettit's patent method, is as follows:

100 tons fish at £2 lb. per ton, ...	£200
Sulphuric acid,..............................	17 10 sh.
Labor, ...	25
Total,........................	£242 10 sh.

The cost of one ton is therefore £4 17*s*, not including interest or capital invested, wear and tear, &c. The price paid for fish is the chief expense of the manufacture, and when reduced one-half or more, as can be done in some localities, we see how promising this manufacture is. It is to be considered too, that the fresh fish yield, when steamed, 2 and 2½ per cent. of oil, the value of which must be deducted from the cost of the fish manure.

A company has recently been formed at Christiana, in Norway, with the object of making fish manure. Samples of their first products have been analysed by Stockhardt, (*Chemischer Ackersmann*, 1856, No. 2,) and contained about 10 per cent. of nitrogen, and 8 per cent. of phosphates of lime and magnesia.

On the coast of the North Sea, in Oldenburg, an excellent manure is made from a kind of small sea-crab that is caught there in large quantities. The crabs are simply dried and ground. According to an analysis in Liebig's *Annular der Chemie*, March, 1856, this manure, called GRANAT-GUANO, from the name of the crab, contains 11.23 per cent. nitrogen, and 5.23 per cent. phosphates of lime and magnesia.

In the United States, the newer attempts at making commercial fish manure, are but two, viz., that in New Jersey, furnishing the *Cancerine*, and that of the Narragansett Co., in Rhode Island. The former I have not had an opportunity of examining, but the analysis of it by Prof. BOOTH, quoted in the Country Gentleman of June 12, must be erroneous or erroneously copied.* It is as follows:

Ammonia,................................	25.57	per cent
Organic matter,...........................	29.23	"
Phosphate of lime,.......................	5.90	"
Sulphate of lime, ...	10.32	"
Silex, ...	1.20	"
Water,..................................	26.10	"
	98.32	

Here we have 43.52 per cent. of phosphate and sulphate of lime, silex, and water; there remains then but 56.48 per cent. of the whole, as the material to furnish 25.57 per cent. of ammonia. Now suppose this 56.48 per cent. of organic matter is pure flesh of crabs, and assuming what I believe is true, that no muscular tissue contains more than 17 per cent. of nitrogen, we have 9 6 per cent. of nitrogen, or 11.7 of ammonia as *the largest quantity that can be found in or yielded by* the organic matter in Cancerine, unless we take into account a little uric acid, contained in the urinary organs of the crabs, which however cannot materially affect the estimate. To show that this conclusion is not entirely fanciful, the analysis of the "Granat-Guano," made in the Agricultural Laboratory of the University of Goettingen, may be cited in full. It is as follows. The substance dried at 212 deg. F. gave:

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* It was correctly copied by us from Prof. COOK's Report.—EDS.

Organic matter. (containing 11.23 of nitrogen,)......	69 20
Phosphate of lime,..............................	4.34
" magnesia, ...	.92
Carbonate of lime, ...	6 32
Salts of potash and soda, and oxyd of iron,.........	5.52
Sand,..	13 64
	99.94

This manure, with 69.20 per cent. organic matter, yielded but 11.22 per cent of nitrogen, equal to 13 64 per cent. of ammonia; while *Cancerine*, containing but 56.48 per cent. of organic matter of the same kind, (flesh of crabs,) is stated to yield 25.57 per cent. of ammonia!

Assuming the ratio of ammonia to organic matter to be the same in both, and this is entirely reasonable, then we have the following proportion:

69.20 : 13.64 : : 56 48 : 11.13,

the last term of which expresses the greatest per centage of ammonia that can be contained in a specimen of *Cancerine*, such as Prof. BOOTH analyzed. It will be seen that the two independent calculations lead very nearly to the same result.

[*To be continued.*]

A New Wind Power.

MESSRS. EDITORS—Believing that any information, which would be interesting to the readers of your papers, would be acceptable to you, I communicate the following.

The rapid rise in the price of labor of late years, has led many farmers and mechanics on our western prairies, where wood and water is scarce, to wish that some one would invent a wind-power that would be safe to invest in upon a large scale, for milling or any other purposes desired. I have been looking for some one among the many wind-powers that have been invented and patented for the last two or three years, to be so constructed that the whole machinery would be equally safe in a gale as the building upon which it stood. But I find none to satisfy me that it is so upon a large scale; yet there are many that deserve much credit, and will no doubt receive it.

During the past winter, I set myself at work to get something that would operate as a wind-power to my liking, and triumphed after several trials. The nature of it is, that it is always in a position to receive the full power of the wind, and more than can be used by any other of the same diameter, from the fact that the wheel or cylinder upon which the wings are placed, is completely housed in an octagonal shaped frame-work, with doors so arranged that they can all be thrown open or shut at pleasure in the strongest wind by one person; and when open to a certain position, they form a tunnel, or a large surface for gathering the wind and turning it to the wheel. It is simple yet permanent, and easy to build; any good carpenter can build from the drawing or model. It is a perpendicular shaft, which may extend down through the building upon which it is placed, so that it may be geared to in each story at pleasure. I have shown it to many, some of whom are first best mechanics, and all give it the preference, and pronounce it the thing. It was patented May, 1856. M. S. JOHNSON. *Palestine, Ill.*

The Sponge Apple.

A correspondent asks for a description of this apple, which has been cultivated to some extent in Western New-York. Some years ago the writer sent specimens to F. R. Elliott, of Cleveland, who pronounced it nearly or about equal to the Gravenstein, and who has since described it in his fruit book, among the apples for "amateur culture." We think it inferior to the Gravenstein, but it is recommended by the free growth of the tree, its productiveness, fair fruit, and by the very tender texture of the apple in spring, if properly kept through winter. It is too acid till quite ripe. It is large, roundish conical, yellowish green, slightly striped with red, stem short and in a very small cavity—flesh greenish white, very tender when ripe, flavor good, and the fruit much admired by some for its peculiar texture.

The Illustrated Annual Register.

Two numbers of this work are now issued—for 1855 and 1856—and it will hereafter be published regularly, toward the close of each year; and every person who takes any interest in rural affairs should be careful to secure the work from its commencement. In a few years it will form a more valuable RURAL LIBRARY than can be procured in any other shape for ten times the money..

PRICE—in paper covers—25 cents—Five copies, $1—Twelve copies, $2. Bound in muslin, 50 cents. *Sent by mail post-paid.*

☞ The number for 1857 is now in press, and will be issued in September.

Volumes of the Cultivator.

☞ The volume of THE CULTIVATOR for 1855, we have now ready, stitched in paper covers, and bound in muslin—price, *where we prepay the postage*, 75 cents for the former and $1 for the latter.

We have already spoken of the importance of possessing THE CULTIVATOR in library form, to those who would have the best and cheapest of works on American Agriculture. Embodying, as its volumes do, the practice of numbers of the ablest and most successful farmers of the country, it is believed no work can be found, containing so great a variety of reliable information on all the subjects it embraces, and at so little cost; and the beginning of the Third Series offers a favorable opportunity to all to secure unbroken sets from that period. Three Volumes are now ready—Price of the three, neatly and durably bound, and *post-paid*, $3. Sewed in printed covers, and *post-paid*. $2.

☞ For the first time in a number of years, we are enabled to offer one or two complete sets of the Cultivator from the beginning. Price—

First Series, 10 Vols., Quarto,...............	$10.00
Second do 9 Vols........................	11.25
Third do 3 Vols ,........................	2.25
Total,.................................	$23.50

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust. Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,
GRIFFING BROTHER & CO,
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THE EXCELSIOR CIDER-MILL,

"*KRAUSER'S PATENT.*"

THE subscriber having tested this mill personally, during the past *Fall* and *Winter*, and ascertained from actual experience, where it was imperfect, has made several important improvements in the pressing arrangements, and now offers it to the public as the ONLY *Cider-Mill* that will perform the operation of grinding and pressing apples perfectly. Two good men can grind and press out from 6 to 8 barrels of cider in one day. The making of cider is only one of the advantages of this mill. Cheese and lard can be pressed with it, and we have sold several to people who say they have pressed their clothes dry instead of wringing them, which wears them out much quicker than the actual wear of the clothes, while the pressing does not wear them at all. The price of these machines is $45 each, with a full warrantee. All orders and communications promptly answered by addressing

RICH'D H. PEASE,
July 24—w6tm2t Albany, N. Y.

To Farmers and Manufacturers.

The U. S. Flax and Hemp Co., No. 28 Pine-st., New-York,

MANUFACTURE the economical and yet successful Flax and Hemp Machines, and are prepared to fill orders for the different sizes of Hand and Power Flax and Hemp Brakes and Scutches made by them, for Mill and Plantation use, and sold with the fullest guarantee as to durability and performance.

Sixty tierces prime Flax Seed, selected for sowing, fo sale. Orders must be directed to E. F. HOVEY, at the Depot of the Company, 28 Pine Street. Refer to

EDW. S. GOULD,
July 10—w1tm5t* 17 William-st., New-York.

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MORE than *four thousand* of these convenient and durable Scales have been put up by us in different parts of the United States and the British Provinces.

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THE BEST HAY AND CATTLE SCALES;

and we have certificates without number from officers of city and village corporations, manufacturing establishments, and private individuals. who have our scales in use, testifying to their superior excellence.

To be in season for the coming hay crop, orders must be given early.

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For Farm and Mechanical Purposes.

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PRESENT LIST OF PRICES.		*Weight.*
2½ horse power,	$225	1500
3 ...... do	$275	1800
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Jan. 31—wtf—May 22—mtf A. N. WOOD & CO.

Willis' Patent Stump-Puller.

THIS is a Machine of vast power; and for extracting stumps, large or small, it has no equal. It will take out from 12 to 20 an hour, without difficulty, and with but a

SINGLE YOKE OF OXEN.

It is also the best Machine yet invented for

MOVING BUILDINGS.

All progressive men who desire to bring their waste lands at once into market, or a state of fertility, are invited to address or call on the patentee, WM. W. WILLIS, Orange, Mass., or John Raynolds, at C. M. Saxton & Co.'s, No. 140 Fulton-st., N. Y., where a working model may be seen, and other information obtained. June 12—w&mtf

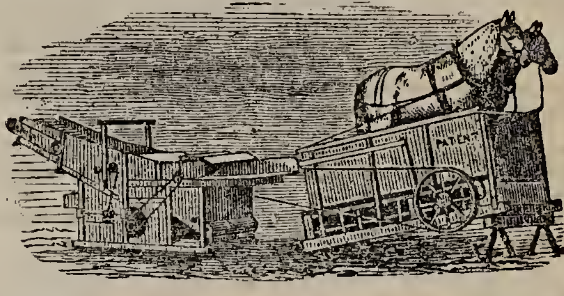
MANNY'S
COMBINED REAPER & MOWER
AND
Forbush's Combined Reaper and Mower,

For sale by GRIFFING, BROTHER & Co.,
May 29—w&m3m 60 Courtland-st., New-York City.

Country Residence for Sale.

DELIGHTFULLY situated, one mile north of the village of Claverack, half a mile from the Hudson River Institute, and four miles from the city of Hudson; containing 37½ acres of good quality land There are about 150 young trees of choice fruit, a fish pond, a never-failing spring between the house and barn, and a stream running through the farm The buildings are almost new, and fences in good condition. Price $4,500; terms of payment to accommodate purchaser; and possession given on the 1st of April next. Address the subscriber at Hudson, Columbia Co., N. Y.

May 29, 1856—w6tm2t* JOHN McKINSTRY.



Schenectady Agricultural Works.

IN consequence of the increased demand for their Improved RAILWAY HORSE POWERS,
THRASHERS AND SEPARATORS,
Combined THRASHERS and WINNOWERS,
Circular SAWING MACHINES and CLOVER HULLERS,

The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly G. WESTINGHOUSE & CO.

Schenectady, March 6, 1856—w&mtf

The Best Book For Agents!

TO PERSONS OUT OF EMPLOYMENT.

An Elegant Gift for a Father to present to his Family.

☞ Send for one copy and try it among your Friends. ☜

WANTED—Agents in every section of the United States, to circulate SEAR'S LARGE TYPE QUARTO BIBLE, for Family use, entitled THE PEOPLE'S PICTORIAL DOMESTIC BIBLE.

This useful book is destined, if we can form an opinion from the notices of the press, to have an unprecedented circulation in every section of our wide-spread continent, and to form a distinct era in the sale of our works. It will, no doubt, in a few years become THE FAMILY BIBLE OF THE AMERICAN PEOPLE.

☞ The most liberal remuneration will be allowed to all persons who may be pleased to procure subscribers to the above. From 50 to 100 copies may easily be circulated and sold in each of the principal cities and towns of the Union. IT WILL BE SOLD BY SUBSCRIPTION ONLY.

☞ Application should be made at once, as the field will soon be occupied.

☞ Persons wishing to act as Agents, and do a safe business, can send for a Specimen copy.

☞ On receipt of the established price, Six Dollars, the PICTORIAL FAMILY BIBLE, with a well bound Subscription Book, will be carefully boxed, and forwarded per express, at our risk and expense, to any central town or village in the United States, excepting those of California, Oregon and Texas.

☞ Register your Letters, and your Money will come safe.

☞ Orders respectfully solicited. For further particulars, address the subscriber (post paid.)

ROBERT SEARS,
July 17—w&m1t. 181 William st., New-York.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

UNITED STATES AGRICULTURAL
Warehouse and Seed Store.

MAYHER & CO., Nos. 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements, FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz : —

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle **D** and **F** Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogne will be furnished by addressing the subscribers as above. March 1—mtf

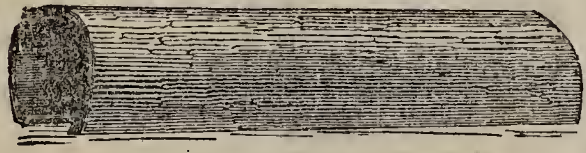
---

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

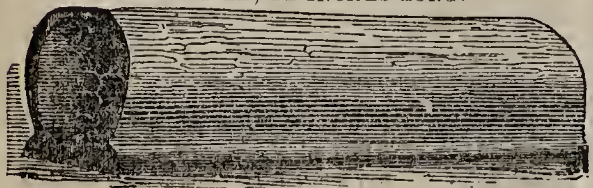
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

2½	inches calibre,	$12 per 1000
3½	" "	15 "
4½	" "	18 "
5½	" "	40 "
8	" "	80 "

SOLE TILE, 14 INCHES LONG.



PIECES.

2	inches calibre,	$12 per 1000.
3	" "	18 "
4	" "	40 "

Also on hand 6 inch calibre Octagon pipe, $20 per 100, and 8 inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Late BABCOCK & VAN VECHTEN,
May 8—w&m3ms. Albany, N. Y.

RICH'D H, PEASE, Agent,
Excelsior Agricultural Works, Warehouse and Seed Store,
359 & 371 Broadway, Albany, N. Y.

AGRICULTURAL IMPLEMENTS,

WHOLESALE and retail—FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse.*

GRIFFING, BROTHER & CO.
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep, French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan 1—w&m1y*

DEVON CATTLE.

THE subscriber's second ANNUAL CATALOGUE of DEVON CATTLE, bred entirely from stock of his own importation, is now ready. It contains full pedigrees of all the animals in his herd; of which he offers a number of very superior bulls and heifers for sale.

Also ESSEX PIGS, bred from the best importations.

Address, C. S. WAINWRIGHT,
April 1—w&m6ms. Rhinebeck, Duchess Co., N Y.

A. LONGETT,
34 CLIFF-STREET, NEW-YORK.

PRICES OF FERTILIZERS FOR SUMMER 1856.

PERUVIAN GUANO, No. 1, with Government brand and weight on each bag,	per ton of 2,000 lbs..	$53.00
COLUMBIAN GUANO,	"	36 to 40.00
SUPERPHOSPHATE OF LIME,	"	45.00
BONE DUST, Ground,	per bbl.,	2.50
" Turnings,	"	2.37 to 2.50
" Sawings,	"	3.00
" Mixed fine ground,	"	2.75 to 3.00
PLASTER OF PARIS,	"	1.00 to 1.25

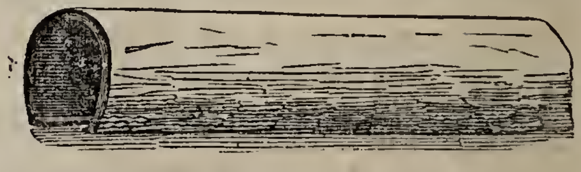
There is an inferior grade of Peruvian guano which has the Government Brand on the bags—can be detected by the figure 2 under the weight mark.

A. LONGETT,
34 Cliff-St., Corner of Fulton,
June 12—w6tm2t New-York.

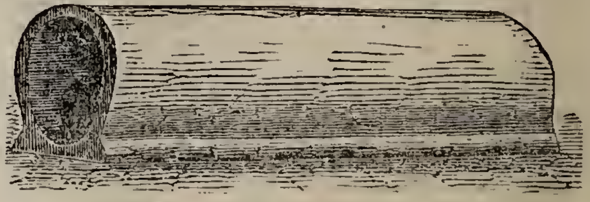
Artcher & Co.'s Tile Works,

Near the Orphan Asylum, on the Western Plank Road—Office 63 Quay-street, near the Steam-boat Landing.

THE subscribers are prepared to furnish Drain Tile of all sizes and patterns at reduced prices, and warranted as good as any made in America—their length being 14 inches—(1000 will lay 76 rods of drain.) On a large order a liberal discount will be made.



Horse Shoe Tile—4½ inch calibre, $18 per 1000—3½ inch, $15 per 1000—2½ inch, $12 per thousand.



Sole Tile—4 inch calibre, $40 per 1000—3, $18 per 1000—2, $12 per 1000.

Also on hand Horse-Shoe Tile, suitable for small streams and out-houses, at $8 per 100. Also large Tile, suitable for cellars, cisterns, sinks, &c., at $4 and $6 per hundred. Tile delivered at the docks and railroads free of cartage. Specimens can be seen at Clark & Gifford's, 39 Quay-st. Orders thankfully received and promptly attended to. Address

J. ARTCHER & CO., Albany, N. Y.

DISSOLUTION.—The copartnership heretofore existing under the firm of Appleton & Alderson, is this day dissolved by mutual consent. Feb. 1st, 1856.

As usual, orders for Tile will be thankfully received by

GEO. ALDERSON, Agent,
May 8—w&mtf Albany.

Farm Lands for Sale.

THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL OVER

Two Million of Acres of Farming Lands,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE lands were granted by the Government, to aid in the construction of this Railroad, and include some of the richest and most fertile Prairies in the State, interspersed here and there with magnificent groves of oak and other timber. The Road extends from Chicago, on the North-East, to Cairo at the South and from thence to Galena and Dunleith, in the North-west extreme of the State, and as all the lands lie within fifteen miles on each side of this Road, ready and cheap means are afforded by it for transporting the products of the lands to any of those points and from thence to Eastern and Southern markets. Moreover, the rapid growth of flourishing towns and villages along the line, and the great increase in population by immigration, etc., afford a substantial and growing home-demand for farm produce.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc

Economy in cultivating and great productiveness are the well known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very *large profits*. A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to 2 50 per acre. By judicious management, the land may be plowed and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market.

Bituminous coal is mined at several points along the Road, and is a cheap and desirable fuel. It can be delivered a several points along the Road at $1 50 to $4.00 per ton; Wood can be had at the same rates per cord.

Those who think of settling in Iowa or Minnesota, should bear in mind, that lands there, of any value, along the water courses and for many miles inland, have been disposed of;—that for those located in the interior, there are no conveniences for transporting the produce to market, Railroads not having been introduced there. That to send the produce of these lands, one or two hundred miles by wagon to market, would cost much more than the expense of cultivating them; and hence, Government lands thus situated, at $1,25 per acre, are not so good investments as the land of this company at the prices fixed.

The same remarks hold good in relation to the lands in Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons, or interrupted water communications, increases the expenses of tranportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in cost of transportation, especially in view of the facilities furnished by this Road, and others with which it connects, the operations of which are not interrupted by the low water of summer, or the frost of winter.

PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for Deeds may be made during the year 1856, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract.

Interest will be charged at only 3 per cent. per an.

As a security to the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that at least one tenth of the land purchased shal yearly be brought under cultivation.

Twenty per cent. from the credit price will be deducted for cash. The company's construction bonds will be received as cash.

They will be 12 feet by 20 feet, divided into one living and three bed-rooms, and will cost complete set up on ground chosen anywhere along the Road, $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

Special arrangements with dealers can be made to supply those purchasing the Company's lands with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices.*

Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.

It is believed that the price, long credit, and low rate of interest, charged for these lands, will enable a man with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to JOHN WILSON,

Land Commissioner of the Illinois Central R. R. Co.
Office in the New *Stone Passenger Depot*, foot of South Water Street, Chicago, Ill. May 1—m6t

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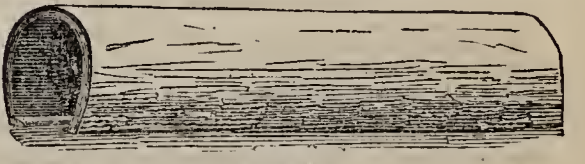
Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

HORSE SHOE TILE 14 INCHES LONG.



PIECES.

4½ inches calibre,	$18 per 1000
3½ inches calibre,	15 per 1000
2½ inches calibre,	12 per 1000

SOLE TILE 14 INCHES LONG.

PIECES.

4 inches calibre, at	$40 per 1000
3 inches calibre, at	18 per 1000
2 inches calibre, at	12 per 1000

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M Merchant's, 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that tile from his establishment obtained the first prizes at the Albany County, and N Y. State Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to. Address JOHN APPLETON,
195 Washington-st., Albany, N. Y.
May 1—weow8tm3m

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To Nurserymen and Dealers in Trees.

THE subscribers beg leave to announce that their wholesale priced CATALOGUE of Fruit and Ornamental Trees, Shrubs, Roses, &c., for the autumn of 1856. is now ready, and will be sent free to all applicants who enclose a stamp.

ELLWANGER & BARRY,
Mount Hope Nurseries,
July 17—w&m1t Rochester, N. Y.

E. G. COOK,

Belleville, Jefferson County, N. Y.

BREEDER of Devon Cattle—French, Spanish, Leicester, South-Down and Cross-Breed Sheep.—Suffolk Pigs and Brahma Fowls. July 17—weow4tm3t*

Pure Bred Suffolk Pigs.

THE subscriber has for sale a few very choice Pure-blooded Suffolk Pigs, bred from stock imported by Sol. W. Jewett, Esq

E. MARSHALL.
July 10—w&mtf Poughkeepsie, N. Y.

FOR SALE,

THAT SPLENDID ISLAND in the river St. Lawrence, known as **Hacey Island**, situated in the town of Louisville, St Lawrence Co., N Y., 30 miles below Ogdensburgh, containing 1868 acres of excellent land, adapted either for pasture or tillage. It is well known as the best grazing land in the county—100 acres are under cultivation, and well fenced, with 8 complete farm steadings, in addition to the Homestead on which there is a commodious dwelling, barn 160 by 40 feet, sheds 400 by 24, workshop, granary, &c., all in good repair. Also several large orchards, and a splendid hard-wood bush—no waste land. Terms—one-half down—remainder as agreed on. Apply to the proprietor,

WILLIAM R CROIL.
June 12—w2tm3t* Louisville, St. Lawrence Co., N. Y.

TURNIP SEED.

WE ARE now prepared to furnish the following sorts, which have given such general satisfaction for past years:

Skirving's Improved Ruta Baga,	50	cents per pound.
Purple Top Do.	50	"
Large White Flat or Globe,	50	"
Large White Norfolk,	50	"
Early White Stone,	75	"
Yellow Aberdeen,	75	"
Yellow Stone,	75	"

And at reduced rates in large quanities.

JAMES M. THORBURN & CO.,
June 26—w9tm1t 15 John Street, New-York.

Lawrence Scientific School,

Harvard University, Cambridge, Mass.

THE next term will open on Thursday, August 28. For Catalogue containing full particulars, address

E. N. HORSFORD,
June 26—w2tm1t Dean of the Faculty.

Great Sale of North Devon Stock.

THE whole and entire heard of pure NORTH DEVON CATTLE imported and bred by R. H. Van Rensselaer, of Morris, Otsego county N. Y., will be sold without reserve, by public sale, at WATERTOWN, on *Thursday* the 3d day of October, at 1 o clock, on the ground appropriated to the New-York State Agricultural Society on the 30th Sept., and 1st, 2d, and 3d of Oct next. consisting of *twenty-three females and three males*, which includes among the latter the celebrated and imported bull "Megunticook," winner of the first prize at the show of the American Institute in 1850, and also the first prize at the New-York State show in 1851.

Nothing is risked in pronouncing this herd one of the three best herds of North Devons in the United States, and unsurpassed by any one of them.

Catalogues will be furnished on application at the offices of Secretary of the New-York State Agricultural Society, Boston Cultivator, and Albany Cultivator, by Col. L. G. Morris of Fordham, Westchester Co., and the undersigned at Butternuts, Otsego Co.

H. STURGES.
July 10—w8tm2t.

Farm for Sale.

THE farm formerly owned and occupied by the late Seth Whalen, situated in Sara'oga county, five miles west of the village of Ballston Spa, in a pleasant and healthy section of country; it contains about 90 acres of very fertile and highly cultivated land. On the premises is a convenient and pleasant cottage dwelling, with sufficient room for a large family; also suitable out-buildings. It has a fine garden well stocked with small fruit; also, a good orchard, mostly of grafted trees. It is in a good neighborhood. convenient to churches. school-houses, and stores. About 27 acres of the farm is woodland, with a good deal of chestnut timber. Enquire on the premises of

C. SCHUYLER.
Ballston Spa, July 10—w4tm1t.*

RURAL PUBLICATIONS.

THE COUNTRY GENTLEMAN—THE CULTIVATOR, AND THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS—*Published at Albany, N. Y., by* LUTHER TUCKER & SON.

THE COUNTRY GENTLEMAN is a beautfully illustrated weekly of 16 pages quarto, with special Departments for *The Farm, The Grazier. The Dairy, The Fruit Garden and Orchard, The Florist, The Kitchen Garden, The Poultry Yard, The Housewife, The Fireside, &c.* "This is, without question, the BEST Agricultural Paper in the United States."—Hon. JOHN WENTWORTH, M. C. of Illinois. Price $2 a year.

THE CULTIVATOR, monthly, 32 pages octavo—well-known for twenty years, as the best monthly agricultural journal in this country—price 50 cents per year.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS. The two Nos. issued for 1855 and 1856, contain more than 250 engravings of buildings, animals, trees, fruits, &c., &c. Price 25 cents each—*sent post paid by mail.*

These works combine attractions to be found in no similar publications, and the publishers will send specimens of the papers to all who would like to examine them.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. IV. ALBANY, SEPTEMBER, 1856. No. IX.

Various Farm Processes in Kentucky.

During a stay of some time at Sumner's Forest, we were indebted to its enterprising owner, Mr. Joseph A. Humphreys, not only for much information in regard to the modes of farming there ordinarily practised, but also for the opportunity of making a number of pleasant visits, one or two of which we have already mentioned. After returning from Mr. Alexander's, we called upon William Voorhies, Esq., at Glen Font, near Versailles, where he owns between four and five hundred acres of fine land, which he has cultivated as we understood, with remarkable success.

The Hemp Crop

Coming up as the subject of conversation, we made a note or two that may interest our readers. They are probably aware that this is the main or only *money crop* raised in this section of Kentucky—the grain and grass produced on a farm, and sometimes considerable quantities purchased in addition, being generally converted into stock, and disposed of in that form. The amount of hemp sown this year is apparently large, Mr. Humphreys having, for example, nearly fifty acres, and Mr. Voorhies no less than one hundred and sixty-five.

The soil required is one rich and fertile, and void of other vegetation. Land in which the small grains would run to straw, such as newly broken up pastures, &c., are well suited to its wants, and a number of crops are frequently obtained in succession from the same ground. Mr. V. had used rye as a fertilizer—sowing it in the fall after the hemp was off the ground, pasturing it down till winter, and in the succeeding season plowing it in—preparing the land for hemp again in the spring. Crops vary from three or four hundred pounds to the acre, which is quite small, up to ten or even twelve hundred in the most favorable circumstances. A fair average for a course of years, was thought to be about 600 lbs., failures of crops, &c., included. The present season, the drought through the spring and up till about the middle of June, had somewhat stunted the growing hemp, but it was hoped with rains and good weather, through the first and middle of this month, that the yield would yet be tolerably fair. The hemp ordinarily attains a height of from six to eight feet, and many preferred it say about seven, to having it run up in longer and smaller stalks. The Chinese hemp, of which we have spoken already, was expected by some to grow as high as ten or twelve feet with advantage, and it is said that on the bottom lands of the Danube, and in others of the warmer European countries, the crops attain a growth of fifteen, or even eighteen or twenty feet, without harm to the texture or fineness of the fibre.

After a long succession of hemp crops, Mr. Humphrey's practice was to follow with rye and clover sown in the fall. These were fed down to the hogs the coming season, and the clover kept for grazing two, or in some cases, three years. Then to prepare for hemp again, the clover is turned under late in the fall, and the ground perhaps subsoiled, at any rate broken up to a good depth, in order to become thoroughly mellow during the winter's frosts. In the spring it is plowed again, as *deeply* as possible, harrowed and re-plowed. It is thus put in pretty good tilth, and in ordinary circumstances is then ready for the seed. If previously in cultivation, it is sometimes broken up in the fall, but perhaps most frequently not until early in spring, say the last of February or first of March, and allowed to lay five or six weeks, according to the weather, before re-plowing. After harrowing twice and rolling, the seed is sown in April or May, according to the season. Too much must not be used or the plants are so thick as to be slender and weakly, and it is important to accommodate the time to the state of the weather, so that the young plants may start well, for if stunted at first, they are apt to become scrubby and poor. About a bushel and a peck, Mr. Voorhies considered the best quantity, but it must of course vary on different soils, and under diverse circumstances.

The seed having been sown, the land is harrowed both ways and rolled. Furrows are then run with a shovel plow, as shallow as possible, nine feet apart through the field, merely as guides to help in cutting the crop in straight lines or swaths, when mature. The mode of growing the plant for seed is different. It is sown in drills, to admit the light and air, and more careful treatment of the plant. We read that the English mode is (or rather was, for, since the wars in the early part of this century, hemp has been but comparatively little cultivated in the British isles,) to look for a product of both seed and fibre at once. The practice there advised, is to sow from two to two and a half or even three bushels to the acre—to manure heavily, from "twenty to twenty-five tons of good rotten farm-yard manure per acre" being applied in the spring before sowing—to pull the male plants as soon as the flowers have shed their pollen, and to leave the females standing to mature their seed, after which they are also pulled, and when the seed is ripened and secured, subjected to a similar process of rotting with the others. We notice also that the English farmers appear to *pull* all their hemp, while the Kentucky mode is to *cut* it as near the ground as possible, with a heavy knife made for the purpose.

As they are cut, the stalks are distributed over the ground, and allowed to lay until wilted, when they are stacked in order that the hot sun may not injure the fibre. They remain thus until the fall rains come on, when they are again spread out over the field—say about the first of October. Three months' exposure to frosts and snows and showers generally completes the rotting, when the hemp is put up in hand shocks from 25 to 50 feet apart, containing about 50 lbs. each. After this, the hands of the farm are employed in breaking and cleaning it, as opportunities occur, which processes are concluded in time to have the ground clear for use in the succeeding spring. Hand breaks are most frequently, if not exclusively used, though there have been many attempts to introduce machines for this purpose, and we heard of a new one that was said to have been successfully tried the present season. It will be seen that the whole process as above described is very simple. We have sketched it briefly and perhaps not without error—but with the hope of drawing out information from those who are accustomed to different methods, and correction if we have anywhere misapprehended, as well as to impart the facts that chanced to fall in our way.

The hemp crop, though requiring the best of soils, is not thought by any means an exhausting one. It leaves the ground clean and in excellent condition for subsequent use. The prices obtained, like those of other crops, have been unusually high the past year or two—$7 and $7.50 per hundred having been generally obtained for the last crop. At this price, and with even a fair, not to speak of a heavy yield, it is easy to see that it pays pretty well for the labor and expense incurred.

Mr. Voorhies for years had used no *hay*—a crop far less extensively grown in that part of Kentucky than we were aware. Pastures are accessible to the cattle nearly all the year, and oats cut up unthreshed are highly esteemed for fodder. Corn is also sometimes employed for this purpose, cut with the hemp-hook and regularly cured. Clover Mr. V. did not like as well as rye for a manure, as well as oats or corn for feed, nor as well as the grasses for grazing—the season when it is really good for the last purpose only extending from the first to the tenth of May, along to perhaps the middle of June.

Spring Hill.

We took half-an-hour's ride with Col. Wm. Hart over his extensive plantation adjoining that of Mr. Voorhies. His parks are very fine, and are ornamented by a herd of about a hundred deer, as well as numerous fine Short Horns, and some valuable blood horses. One of his chief pets, however, is his *jack stock*—or "mocking birds," as his lady-friends (the Colonel being a bachelor,) have nicknamed them, from their well known tuneful proclivities. Two of the most musical of these "birds" we were sorry to find "not at home"—a pair of splendid imported Jacks, represented as well worth a long ride to see.

Col. Hart's grandfather was an early settler—indeed, one of the company which sent Boone forth on his travels, and which afterwards purchased the whole State from the Cherokee and other Indians—a bargain which, as our readers will remember, the Virginia legislature set aside by a bare majority, substituting in its place a grant of 200,000 acres of land on the Green river. The feature from which his present estate takes its name, is a large spring that boils up at the foot of the hill on which the house is placed, runs along the ravine some distance and then disappears again beneath the ground. Such instances are very frequent through a wide range of this limestone country, which is apparently full of sink holes and almost everywhere undermined by caverns.

One adjunct to Col. Hart's farm buildings is a contrivance worthy of Yankee ingenuity. He styles it his "calaboose," and it is designed for the restraint, government and education of unruly animals generally, from the unbroken mule to the cow that will not stand to be milked. It is simply a square pen with a *shute*, if we may so call it, at one corner, growing narrower as it recedes, until the animal driven into it finds himself squeezed between its sides, in a position to suit any desired cleaning or trimming operations. On a pivot in a post in the center, swings a pole of the same length as a side of the square, which may be used to push the unwilling mule around into the shute; to train a pair of oxen, by yoking them at the end, and allowing them to work in the circle until accustomed to the task, and for several other purposes, for an account of which and full description of this and his other labor saving inventions we shall have to refer to Col. H. himself, as the hurry of the call we made prevented our noting details and dimensions. We should not omit to mention that he expresses himself highly gratified with an eight-horse power Portable Steam-engine, made by Messrs. Wood & Co., of Madison Co., in this State, and purchased by him on the recommendation of Mr. Humphreys.

On Fish Manures.

[*Continued from page* 260.]

It remains to notice the manures made by the Narragansett Co. These are two in number—Fish Guano and Fish Compost.

Of the *Fish Guano*, the manufacturers say that it is made from fish "by chemically treating, cooking, and then drying and grinding the fish to a powder."

The only analysis that I have seen is that furnished by Dr. Jackson, and copied into the Co.'s advertisements and circulars. It reads as follows:

Ammonial matter, (flesh of fish,)	48.00
Phosphate of lime,	33.90
Carbonate of lime,	7.60
Sulphate of lime,	6.40
Potash and soda,	4.10
	100.00

The amount of ammonia that may be yielded by 48 per cent. of pure fish, is 9.35 per cent. The above analysis indicates therefore a very good manure, although fault might very properly be found with it for not stating the quantity of ammonia actually present, instead of leaving that to be inferred from uncertain grounds.

In order to see whether the manure as it is sold to the farmer, is equally good with that furnished to Dr. Jackson for analysis, I have examined a sample from the stock of the Hartford agent, as well as a specimen of the fish compost, with the results that follow:

[*See table of Analyses at the head of page* 267.]

With regard to the above analyses, it is seen that only those ingredients are estimated which enable us to judge of the value of a high priced and concentrated fertilizer.

It is assumed that, besides phosphoric acid and ammonia, no ingredient of a costly fertilizer, ought to be taken into account in making its valuation, because every other possible ingredient is of comparatively small commercial value, and is either more cheaply accessible to the farmer in other shapes, or is what he does not need to buy, and therefore must not be expected to pay for. As the most effectual control for the

ANALYSES OF FISH GUANO AND FISH COMPOST.

	FISH GUANO.		FISH COMPOST.		HORSE MANURE.
	No. 1. Twining.	No. 2. Johnson.	No. 3. Johnson.	No. 4. Johnson.	No. 5. Richardson.
Water,	**5.95**	**39.35**	**27.95**	**38.05**	**64.96**
Organic matter,	**33.05**		**11.47**		**24.71**
Yielding: Actual ammonia,	.77	.62	undeter'ed	undeter'ed	
" Potential "	3.36	3.47	"	"	
Total Ammonia,	4.13	4.09	.90	.93	.75
Ash,	**60.50**	**60.65**	**60.58**	**61.95**	**10.06**
Containing: Sand and insoluble matter,	11.65	11.93	52.21	54.34	3.28
" Phosphoric acid, insoluble in water,	9.86	9.21	.94	1.02	.81
Phosphate of lime equivalent to phosphoric acid,	Average	20.65	Average	2.12	1.75

accuracy of the results, each substance has been analysed twice, and the per centages are stated precisely as they were found.

To my friend, Edward H. Twining, Esq., of the Yale Scientific School, I am indebted for analysis No. 1. No. 5 is introduced for purposes of comparison, from Trans. of Highland and Ag. Society of Scotland.

By the term "*actual ammonia,*" is meant ready-formed ammonia; "*potential ammonia*" means ammonia that "exists in possibility, not in act;" i. e., the ammonia which may be formed by the decay of the organic matters. This distinction is of importance, because, while the actual ammonia is soluble and immediately available to vegetation, the potential ammonia is more or less slow in coming into service, according to the nature of the bodies that yield it. Thus in Peruvian guano, the potential ammonia, usually one-third of the whole, is mostly in tho form of uric acid, which easily decomposes, thereby converting the potential into actual ammonia.

In bones, on the contrary, the potential ammonia exists in form of gelatine, which decomposes very slowly, especially when protected by fat, as is the case with raw bones.

A glance at analyses 1 and 2, on the one hand, and that by Dr. Jackson on the other, shows that this manure is liable to great fluctuation in value, from some cause or other.

It is a very grave question to the farmer whether the quality of commercial fertilizers may be depended on, as uniform. What does it signify that Dr. Jackson has found a specimen of this manure superior to guano. if the farmer gets an article containing less than half as much ammonia, and but two-thirds as much phosphoric acid? The worth of this fish guano is best seen by computing its money value. If we adopt the same prices as those Dr. Anderson used, in calculating the value of the fish manure noticed on page 378 of vol. 7, viz.: 1½ cts. per lb. for phosphates and 12 cts. for ammonia, we have 4.11 X 12 = 50 cts nearly, as the value of ammonia in 100 lbs, and 20.65 X 1½ = 31 cts. for the phosphates. 50 31 X= 81 cents, the value of 100 lbs., and $16.20 is the value of a ton of 2000 lbs.

If we apply the same calculation to Dr. Jackson's analysis, assuming the 48 per cent. of "ammoniacal matter" to yield 9.35 per cent. of ammonia, we have 9.35 X 12 = $1 12, and 33 9 X 1½ = 51 cts., together $1.63, value of 100 lbs., and $32.60 as total value of one ton.

By the same calculation the fish manure analysed by Dr. Anderson is worth $35.80 per ton of 2000 lbs.

In a series of articles now publishing in *The Homestead*, I have been led to adopt different values for ammonia and phosphates. I have rated the former at 16 cts., and phosphoric acid, not "phosphates," at 2 cts. per lb. This would bring ammonia 4 cts. per lb. dearer, and phosphates about ½ cent cheaper, here, than in England.

It is not needful to review in this place the data that have led to my estimates, because their chief importance is for the purpose of comparing different fertilizers. It is not claimed that my estimates represent absolute values with more than approximate correctness. The price of phosphoric acid should perhaps be slightly raised; on the other hand that of ammonia should be reduced. They are, doubtless, nearer right for this country, than those of Dr. Anderson.

Making my estimates the basis of calculation, we arrive at somewhat different values from those given above. Thus computed, the fish guano, according to the analysis of Twining and myself, is worth $17 per ton. The sample analysed by Dr. Jackson would be worth $43.48, and the fish manure noticed on page 378, vol. 7, has a value of $47.60 per ton.

The fish compost cannot be judged by the same rules as the fish guano. The compost does not profess to be a concentrated manure, and is sold at $2.00 ber barrel of about 200 lbs. In it, the other ingredients besides ammonia and phosphoric acid, must be taken into account. My analyses have not included these ingredients, because they are so liable to vary in different specimens, that no conclusions could be based on a single analysis, and because further, the method by which this compost is prepared, informs us what we may expect to find in it, or rather what we cannot find in it.

In the Co.'s circular we learn that "this manure is made by cooking the fish and treating them with chemical agents, after which they are mixed with fine street sweepings, in about equal quantities, and as fish are only about one-fifth the bulk after the water is taken from them, each barrel of the compost contains some two barrels of fish."

In another circular it is stated that this variety of fish guano "is manufactured by composting the fish after it has been cooked and chemically treated, with an absorbent that is of itself a valuable fertilizer, and with this is combined the blood and gelatine separated from the fish in boiling."

On referring to the analysis we readily find a part at least of the street sweepings, viz: the 53 per cent of sand and insoluble matter. If the "absorbent that is of itself a valuable fertilizer," be street-sweepings, then something more than one-half of the compost is made from it, for we must find several per cent of *soluble matter* in any "valuable fertilizer."

Again, it appears that there can scarcely be as much as two barrels of fish in one of this compost, because all the water is not taken from them. There is not much water in street-sweepings, and there is here 28 per cent. in a mixture of very equal quantities of sweepings and fish. That makes the quantity of water 56 per cent. of the fish. The original quantity is probably about 90 per cent; but little more than one-third of it has been "taken from them."

The value of the organic matter depends upon its ammonia; deducting that, there remains 10½ per cent. of worthless matter; add water 28 per cent., and sand 53 per cent. and we have 91 per cent. of worthless matters. Ammonia and phosphate of lime make 3 per cent., and but 6 per cent. remain unaccounted for.

That this 6 per cent has any great value, is not to be predicated upon what we know of the composition of street-sweepings and of fish.

For the sake of referring this compost to some known standard, I have copied an analysis of horse dung, which had fermented until it could be cut with a spade. The quantities of ammonia and phosphoric acid are not remarkably different; 400 lbs. of well-preserved horse manure are equal to 300 lbs. of this compost, so far as these ingredients are concerned. As relates to the other soluble mineral matters, it is seen that in the compost there is 6 per cent., in the horse dung 5 per cent.; and there is every probability that in this respect, the horse dung is most valuable.

I have said that what remains of the organic matter, after deducting the ammonia, is worthless. I mean it is not worth buying in any manufactured manure. It is valuable in the soil; but peat and green manuring will furnish all of it that is needed, for less money than would put this compost into barrels.

While, therefore, *so far as composition goes,* good horse-dung is scarcely inferior, weight for weight, to this compost, and much superior to it when we compare the quantities that can be procured for the same money; it is not to be forgotten that there are considerations of another kind, which must be taken into the account. The form of this compost is such that it can be easily mixed with the soil, it is less bulky than stable manure, is more pleasant to manage, and *perhaps* it is less liable to fill the soil with the germs of noxious weeds. For these reasons it may perhaps be profitably used by farmers, and especially gardeners, whose supplies of stable manure are limited or expensive, and who can procure this compost without incurring much expense for transportation. *Yale Analytical Laboratory, New-Haven, Ct., June* 24, 1856.

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Valuable Letter on Draining.

Messrs. Tucker & Son—I write you to say that I have finished draining my farm. I may put in a few in spots in different fields where I have not been thorough enough, but the whole cannot amount to more than 200 rods. I took up the first drain I ever laid, to dig it deeper, in order to drain a flat piece of land adjoining. It is nearly 18 years since the tile were laid, and I found them as good as the day they were laid. People would ask me if my crockery would not decompose, laying in the earth, and my money all be lost. These inquiries were in my early stage of draining. Many thought it would make the land cost more than it would ever come to, and some would say it never could pay.

Now, Messrs. Editors, I have finished, and I can speak to a certainty. I firmly believe I can take a farm similar to this, and with $400 or $500 drain it, every acre, complete. *Don't start now, until I explain myself.* With that $400 or $500 I would at least drain twenty acres very thoroughly, and get two crops of wheat from that twenty acres. The excess of crop over what it would have been had I not drained it, would at least give me back my money again to go on and drain twenty acres more. I never gave the drained land rest until it paid back the cost of drainage, so you can readily perceive that it don't need much capital after all to drain a farm. It requires good management and enterprise to get along with it, and the owner of the land to have it done under his own inspection, and have it done so that he is sure it will thoroughly dry the land. He is only loaning the money to the land for one or two years; after that he gets it returned; and every two or three years during his life-time it is again returned; therefore you and your subscribers can readily perceive that capital for draining is not so much needed as it would appear to be.

I have tried to explain this as well as I can, as I often hear farmers say, as soon as I can get some spare money I shall go to draining; but I know no better way to get spare cash than to drain the land. I had many things to contend with when I commenced—great cost of tile, and double the cost and more for digging, with public opinion desperately opposed to that mode of improving the land. But draining is the great radical improvement; it is the ground-work of all other improvements. Clay soils are much easier cultivated; ten loads of manure will do more good on drained land than three times as much on wet or even damp land. I have no doubt whatever, but the crops in New-York State can be far more than doubled by a thorough course of drainage, and no country I ever saw requires it more than Ohio and Canada, at least what I have seen of those countries.

A number are engaged at draining slowly in this section, but it vexes me, (or as a Scotchman would say angers me,) to see how imperfectly some of it is done. Some have had outlets, some trust the work to men who have dug many ditches, and think that they must know how it should be done. Such men, or some of them cheat their employers shamefully. I know at least one farmer, who, when he went to plowing his drained land, plowed up his tile, and I know more that will plow them up whenever they study their own interest by deep culture. I was on the farm of a Mr. Humphrey in Ontario county, a few weeks ago He deserves great credit for what he has done in draining. He has drained a great deal of swamp land, that a few years ago was worse than worthless, as it then bred pestilence. Now he has more than 60 acres of that worse than worthless land let at a rent of eight dollars per acre a year—part to raise corn and part peppermint, and he says it is worth a great deal more. Some of it he cultivates himself, and I saw a field of wheat which is the fifth in succession, year after year, and I assure you it is a good crop and early. I saw another field, oats equal to anything I ever saw. Mr. H. was engaged digging many of his ditches deeper, and now making them from 5 to 6 feet deep. The water comes out at the base of sand hills, of which his upland is mostly composed, and he has only to tap the base of these sand hills and then keep the water under ground until he reaches his outlets, and it is not expensive draining after all; although to be perfect he has to get down to the gravel some 5 to 6 feet deep, but the earth being porous the drains admit of being wide apart. This is one striking instance of what draining will do, although it don't show what draining will accomplish on upland; yet I have no doubt but there are millions of acres in the State of New-York like Mr. H.'s, that might be so improved if they were owned by men of enterprise. Mr. H. is a thorough-bred American. I had always thought it required some foreign blood to make an enterprising *drainer*, but he is one exception. John Johnston. *Near Geneva, N. Y.—July* 11, 1856.

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Manures.

PRINCIPLES EVERYWHERE ALIKE—EXPERIMENTS AND THEIR RESULT—CORN AND COTTON—GUANO—SALT—THE ESSENCE OF THE WHOLE SUBJECT.

Messrs. Editors — Our system of agriculture, or rather its practices, are so different from those of your section of our country, that many may think that the results of our experience are worth nothing with you. If I were of this way of thinking, I would not be at the expense of taking or the trouble of reading agricultural papers published among you, but I believe that principles are the same though practices differ, owing to difference of circumstances. As manures are used largely and for almost every crop with us, and have been used for many years, the proper application of them has been the subject of much discussion; but the conclusion is rather more generally received than with you.

I have made many experiments myself, attaching much importance to the question, and my conclusion is so firmly fixed that I do not think that I could be made to change it. My experiments have also convinced others under me, some of whom were much prejudiced against my plan. I too have theorized much on the subject, having read most that has been written about it from north to south, and have given my theories as fair trials as I knew how to do. I can therefore give my practice as the result of no little reading and some honest experiments.

My conviction is that the deeper manure is plowed in, (within the reach of atmospheric influences,) the more good it does. To illustrate my plan, I will give my method of applying it to our two principal crops, cotton and corn. These crops are grown on ridges which are reversed every year that the land is planted. For corn, I plow out the alley between the old ridges with one or two furrows, generally the latter, of a two-mule plow, and in these furrows the manure is spread as evenly as possible; two similar furrows are thrown back over it and the corn planted. In cotton planting the only differences are, that the alley is not plowed out, but the manure is spread in the bottom of it. four similar furrows are thrown on it, and the ridge is dressed into shape with the hoe before the seed is put into the ground. I have never failed to realize satisfactory results from guano applied in this way to corn, while I have heard many complaints of the injury it has done to corn, or the unsatisfactory returns when applied superficially as it is most generally done among us. The quantity usually applied by me is one bag, about 160 lbs, guano per acre. When manuring fruit trees, I apply the manure in the autumn or early in winter, under the belief that the loss of the manure is more than compensated by the injury to the roots avoided by not digging it in.

In conclusion, I would advise D. E. E. to try the different methods on a smaller scale for his own satisfaction. Were I he, I would spread my manure on the surface, and as quickly as convenient *after made* or spread, plow under, say six inches at least. If turning manure deeply under does so little good, why do successful gardeners, both in Europe and this country, recommend it to be spaded in 2 and 3 spits deep for some crops, such as asparagus, the vine and others?

In reply to Mr. John White about salt, I would say that salt is most decidedly beneficial to some crops, among others to our long stapled cotton, asparagus, turnips, carrots, beets, radishes, parsnips, cabbage, lettuce, Irish and sweet potatoes, and decidedly injurious to all of the pea and bean families, clover and may be others. When added to manure or guano, I have no doubt that it fixes the ammonia and otherwise improves them for either corn, wheat or barley, when the manures or lands are not too salt already.

Since writing the above, I see in your next number, as copied from some discussion in England, what I believe to be the true essence of the whole subject, which is to spread manure as soon as possible after it is made, and then plow it in as soon as possible after it is spread. R. C. *Beaufort, S. C., July*, 1856.

The above paper will be read with interest both north and south, and we may be permitted to hope it is not the last for which we shall be indebted to the writer. His observation as to the universal identity of Principles, however Practice *may* vary, is one which is far too generally disregarded. Eds.

Inquiries—Draining—Seeding Lands, &c.

Editors of Country Gentleman.—My land is stony, with some rocks. To plow through, around, and over them, does not suit my views. Is blasting and hand picking the only or easiest mode of getting rid of them? I am aware that there has been a stone picker or gatherer advertised. Is it a good and efficient article, and if so, where can one be seen at work?

I have a field of about twelve acres, which I am anxious to drain. In the spring and fall—indeed when there is a heavy rain, (though dry now,) a *stream* from my neighbor's lands runs through it. I have had a drain four feet deep, three feet wide at top, and two at bottom, made along the course of the stream, but the sides cave in, and the water from the side drains will be dammed up at their junction with this centre drain. I thought of placing eight inch tile in the bottom, and then fill the drain within two feet of the surface with stones; but I fear this will not allow the water (at all times) to run off. The length of the main drain will be about forty rods, and there is sufficient fall to carry the water away freely.

Again, I feel very desirous of seeding down a field this fall where oats are now growing, so as to have a crop of hay next summer. Some say it can be done, and by sowing one pound of turnip seed per acre with the grass seed, a fair crop of turnips may be had. Others insist that the hay will not be worth mowing next summer, and express some doubts as to grass seed doing well at all sown in this manner.

Will you advise me in relation to these matters, through your newspaper. C. S. R. *Nyack, Rockland Co., N. Y.*

We have no practical knowledge of the operation of the stone picker—can any of our readers inform us of its success?

Our correspondent will find directions in some of our back numbers, how to split and remove rocks by means of fire, and without resorting to blasting.

Open drains are necessary for large quantities of *surface* water; covered drains carry off most efficiently the surplus water *in* the soil. Open drains must necessarily be shallow in proportion to their depth, because soil will not stand at a steeper slope than a foot rise to a foot and a half horizontally; consequently an open drain three feet deep, must be, to prevent caving in, nine feet wide. Our correspondent may make a shallow open drain, if he can get slope enough to carry his side drains into it. Or he may cut a large and wide open drain. Or, he can adopt the course he proposes, if the quantity of surface water is not so large as to require more than a few hours to find its way down into the large proposed covered drain. When there is much water descending from the surface of the ground, down into any covered drain, the tendency is always great towards the caving or filling-in of the earth among the stones—this must therefore be specially guarded against by an ample covering of flat stones, durable slabs, &c., and it is greatly lessened if the surface is covered with a strong growth of grass.

The best way to seed down the land on which oats are now growing, is to sow timothy-seed as early in autumn as the soil and weather are sufficiently moist to start it; and clover seed early in spring. Or, if both are sown together *very early* in spring, and brushed or harrowed in, they will afford a pretty good crop the same summer. We are inclined to think that on the whole, and for ordinary practice, the early spring seeding will be most certain and easy. If half a bushel of seed per acre is sown, the crop the first year will exceed that often obtained from second and third year's crops, with common management, and ordinary quantities of seed. This we know from repeated trials. We can see no object nor advantage in sowing turnips. The best success we have ever had in seeding, is by sowing grass without any other crop, in autumn, or very early in spring.

ENTOMOLOGY.

No. XII.—The Rose-bug.

An insect which greatly infests the young oak trees and also the grape vines, in the vicinity of Lawrence, Kansas, is sent us by Dr. Doy, who wishes information respecting it. He says it appears to be virulently poisonous. One of his hens with her nine chickens were found dead, one morning, and on opening them a quantity of these insects were found in the crop of each.

The surmise that these insects are poisonous and that the fowls had died in consequence of eating them, is certainly erroneous. Fowls are very fond of this insect, and where it abounds they daily devour numbers of it, and are one of the best means for restraining it from increasing. But unfortunately this is an insect which in particular districts of our country becomes so excessively numerous, at times, as to render it hopeless to quell and subdue it by all the forces from the barn-yard which it is possible for us to array against it.

This insect is a beetle which is commonly called the Rose-bug, from the fact that it makes its appearance towards the middle of June, about the time that roses commence flowering, and from the injury which it does them. When these beetles are not very numerous it is chiefly upon rose bushes that they are noticed, and they would appear to be most fond of this and other vegetation pertaining to the same Natural Order, including the apple, plum and cherry. But when we see the avidity with which they consume the foliage of forest trees also, as well as garden vegetables, grain and grass, we are left in doubt whether they really have any discrimination in their taste. Elder, which from the earliest times has been esteemed as peculiarly repulsive to insects, they eat freely. Grape vines suffer severely wherever these insects are numerous. The ox-eye daisy (*Chrysanthemum leucanthemum*) also attracts them in abundance, and they devour the leaves, flowers and fruit of the plants which they visit.

It is somewhat remarkable that whilst in many places all over our country this beetle is excessively numerous, in other districts it is quite rare or wholly unknown. It is only occasionally that I have found a specimen of it in the vicinity of my own residence, during the past twenty-five years. Some insects brought me from Bethlehem, Pa., while writing these lines, have this species among them, but the collector informs me it is not so common there as to have been noticed as a depredator. Dr. Harris states that it was wholly unknown in Maine and New Hampshire, and in the northern and western parts of Massachusetts, although in and around Boston it was excessively numerous. My correspondents in some parts of Ohio mention it as one of the greatest pests in their neighborhood. And in Mercer county, Illinois, two years ago, I received surprising statements respecting it. It was the chief and almost the only pernicious insect which had ever been known upon the fruit trees there. The Clerk of the county, T. C. Cabeen, Esq., of Keithsburg, stated to me that in many orchards its numbers could scarcely be credited by persons who had not seen them. It invades the trees when the young apples are about the size of hazelnuts; and so eager is it for this fruit that it gathers upon the apples like bees when swarming, crowding together and clinging one on top of another, forming bunches as large as a tea-cup around a single apple, or the two or three apples which commonly grow from one bud. The fruit is wholly consumed by them, not an apple remaining in the orchard; and when there are not apples enough to satisfy them they eat the leaves of the trees also, more or less. He said he was particularly acquainted with one orchard, which had then for seven years in succession been wholly stripped of fruit by these insects, except two of these years, when the insects from some cause being not quite so numerous, here and there a straggling apple could be discovered upon some of the trees. Mr. James Burnet, residing in the same vicinity, informed me, that whilst these insects are out, a person cannot go into an orchard without their alighting upon his clothes, frequently in such numbers as almost to cover him. Though they do not continue long, their numbers and voracity make ample amends for what they lack in consequence of the shortness of their lives. They devour the young peaches also, though they are less eager for them than for young apples.

From other sources I was told that when they first show themselves each year, it is chiefly in the fields of spring wheat. They entirely consume the young wheat plants, and then invade the orchards. In consequence of this, many persons are firmly persuaded it is the spring wheat that breeds these beetles; and some have made it a point not to have any spring wheat sowed upon their farms, so long as these insects continue in their neighborhood. But this idea is evidently erroneous. We have a sufficient proof of this, in the fact, that this same insect has for many years been excessively numerous in Eastern Massachusetts, where no wheat, or but a very small quantity, is raised. The known habits of the larva, moreover, show that wheat is by no means essential to it.

This beetle belongs to the Family Melolonthidæ and the order Coleoptera, the same group which includes a common insect of kindred habits, the May beetle (*Lachnosterna quercina*,) which some years is so numerous in particular localities, as to wholly destroy the fruit when in its germ. One of the insects most common in Europe and most often mentioned in books, the cockchaffer, also belongs to this group; and Dr. Harris states that it would be more correct to call the species under consideration the Rose-chaffer, instead of Rose-bug. But this would lead to confusion, as another insect, (*cetonia aurata*) is commonly called the Rose-chaffer.

The scientific name of this insect is *Macrolactylus subspinosus*. The beetle is about three-eighths of an inch in length, is rather long and narrow, broadest across the middle, and from thence slightly tapering backwards and still more forwards. Its thorax juts out to an obtuse point or angle on each side, in the middle, which suggested the specific name *subspinosus*, meaning slightly or somewhat spined—several kindred beetles having conspicuous spines where this angle occurs. The middle and hind feet are remarkably long and slender, being almost as long as the legs are, from which circumstance the generic name *Macrodactylus*, i. e., great claws or great feet, is derived. It is of a pale buff yellow color, often paler or grayish anteriorly and on the under side. The legs are waxy yellow, and the tips of the hind pair, and of the joints of the feet are black, and furnished with coarse black spines, or sharp-pointed bristles.

These insects make their appearance suddenly, and all disappear as suddenly in about a month. From the investigations of Drs. Green, Harris and others, we learn that their history is as follows. Towards the close of their lives the females crawl an inch or more into the ground, where they deposit their eggs, which are about thirty in number, whitish, and almost globular. These hatch twenty days afterwards, and the little grubs which come from them, feed upon whatever tender, juicy roots they find. They grow to their full size before winter, and are then three-quarters of an inch long, and an eighth broad, of a yellowish white color, the head darker, tawny yellow and polished, and with six short legs inserted beneath upon the breast. The last segment of their bodies is much the largest, bluntly rounded at its end, and is turned under the body. To pass the winter these grubs descend in the ground below the reach of frost, and become torpid. When warm weather returns they revive and crawl back towards the surface, and each worm then forms for itself a pod-like cell of a regular oval form, and smooth on its inside. This is made by the worm turning round and round in one spot, whereby the dirt surrounding it becomes firmly compacted together. In this cell it changes to a pupa, which is soft and of the same color as the worm, but in shape resembles the beetle, the short wings and the horns and legs being traced out upon its surface, enveloped in a thin film, which, when the beetle becomes matured, is cast off. It then breaks open the earthy pod and digs through the ground till it reaches the surface. On its first coming out it is found upon the oak and elm before it invades either the wild or the garden rose; and we suspect that in Kansas, ere now, it has gone from the oaks to the apple trees, and that Dr. Doy has found it a much more formidable and pernicious "border ruffian" than he suspected it to be when he wrote.

These beetles have several natural enemies. The large dragon-fly or darning needles, and several other predaceous insects, seize and devour numbers of them, whilst the insect-eating birds as well as dung-hill fowls feast and fatten upon them. But when they become so excessively multiplied as they do in particular districts, these natural enemies are unable to produce any material diminution in the myriads which are abroad, and it becomes necessary to resort to artificial means for destroying them. The only reliable measure for this purpose, yet known, is to gather them day after day by hand, or by brushing them into tin vessels of water, and by shaking and beating them from trees into sheets spread underneath, and then crushing, burning, or scalding them. This beetle is easily captured, being sluggish and drone-like in its motions, and a person who enters resolutely upon this work, will destroy countless numbers every hour. But it requires the combined efforts of a multitude of persons, when a district is overrun, to rid it of this pest; and bounties from the public treasury to encourage the destruction of such vermin, might as appropriately be paid, as for the destruction of wolves and other animals which are a public nuisance.

I have only further to remark that where these insects have abounded, grapes and other choice fruits, which it was earnestly desired to save from destruction, have been effectually protected, by covering the vines and shrubs with millinet or some other similar netting. Asa Fitch. *July* 11, 1856.

To Destroy the House Leek or Liveforever.

A. D. J. is advised in the July No. of the Cultivator to spade the turf containing it and throw it into the hog-pen, roots, tops and all. He is also referred to another correspondent, who plowed his ground shallow and removed the turf, placing it in heaps, using salt and lime as he packed it, &c. Now a much easier and more effectual way to destroy this troublesome plant, is the following:—

Plant your ground with corn or anything you please, and at each hoeing cover the tops entirely up with the soil; three times hoeing, if faithfully done, will kill them all out.

This plant, more than any other I am acquainted with, depends on the atmosphere for its support, consequently if the tops are excluded from the air, it soon dies, roots and all.

In a field of corn belonging to my brother, last year, there was about half an acre literally covered with it; he treated it in the manner above described, (though I believe he hoed it but twice,) and this year there is scarcely a sprout to be seen. He tried a small piece a few years ago in the same way, and the same results followed. N. H. P. *Pittsford, Vt.*

The Shakers of Mercer County, Ky.

The Shaker Community at Pleasant Hill was founded as early as 1807, and now embraces five families and between three and four hundred members. They farm about five thousand acres of land; their buildings are extensive and commodious, and several of them remarkably well-proportioned, if not absolutely tasteful—their principles being opposed to extraneous show and ornament. They have always been careful and systematic farmers, and were among the first in giving attention to improved stock. With the exception of cotton and sugar only, we believe, they are the producers of nearly all their own food and clothing, bringing into requisition quite a wide range of raw material, and giving occasion for many labor-saving contrivances,—which last, like the best economists everywhere, they think it the wisest policy to invent or make use of, whenever possible.

THEIR STOCK.

Each family has a herd averaging forty head, most of them thorough-bred, and all coming within the wider designation of "full-bloods." They have bred with considerable attention, especially to the milking qualities of their cows. Several large milkers we saw, were descended from the importations of Col. Powell, of Pennsylvania, in 1831 or '32. A number of promising young animals were sired by Mr. Alexander's 'Fantichini.' 'Senator 2d,' one of the bulls they are now using, was imported in 1854, and is farmed from the owners, Messrs. John & Albert Allen, of Lexington, for $500 the season, limited to fifty cows. 'Locomotive' is another of their aged bulls. The former's best points, perhaps, are his neck and back; those of the latter, his long body and deep chest: both are generally good. 'Duke of Cambridge' is an imported bull, three years old. 'Challenger 2d,' sired by imported 'Challenger,' out of Mr. Van Meter's 'Moss Rose,' has rather a darkly shaded nose and heavy horns, but is otherwise a fair animal. 'Roxilla,' now seventeen years old, from the long-horn stock of 1817, has all her life yielded from seven and a half to eight gallons of milk daily, and is really a remarkable cow. 'Diadem,' a fine heifer by 'Valentine,' is to be illustrated in the third vol. of the Am. Herd Book. We might speak at length of many others, but these will suffice.

THE BARNS

Are well constructed and arranged, both for the stock and for the convenience of the feeders. The cattle are placed in two lines of stalls facing an alley running between. The mode of tying practiced, is by a rope around the horns and a spring-hook which fastens into a ring at the corner. In the alley there runs on an easily constructed railway a long wooden trough, which is filled from a shute connecting with the feed room above,—rolled along the alley, and the mangers in a moment supplied with the cut straw, roots, or meal, as the case may be. One barn in which we saw this operation carried on, was 120 feet long by 40 broad. It is a great economizer of both time and trouble.

THE FEED

They most use, is cut straw and meal. There are different ways of mixing these, as well as of doing almost anything else, and one is, in their opinion, rather better than any other. This is to wet the cut straw in the trough, and then mingle the rye or corn meal by degrees with it. The proportion is from a quart to half a gallon of meal to half a bushel of the chaff for each cow, according to the circumstances of the case. Steers they sell when yearlings, getting for them at this age about $30, and they feed or graze bullocks for their own butchering until from three to five years old, when they expect them to weigh about 1700 lbs.

OTHER MATTERS.

Tho main sales of the community are of garden seeds, in which they do a great business at the south and west, and of preserved fruits. Of the last they disposed of jars and caps to the amount of twelve or fourteen thousand dollars' worth last year. They are preserved, *of course*, with the utmost neatness, and put up so that they will keep for any length of time. Glass jars of a medium size are mostly used; corks are pressed into them, fitting as tightly as possible, say a quarter of an inch below the edge of the neck, the cavity above is filled with plaster of Paris, and tin-foil smoothly covered over all. No air can possibly reach them, and their appearance is certainly very inviting. All the labels for these and for seeds, are printed by the community.

The kind of Raspberry which they find most hardy and best adapted to their uses, is the 'Ohio Everbearing.' It is very productive and continues in fruit nearly the whole season. We saw this year's shoots with berries upon them ripe, and in all other stages from the flower upwards. We understood that it was procured by them from the Lebanon, O., family of Shakers, but could not learn its original source.

They manufacture from the worm and mulberry the silks required for their own use, and we were shown all the stages in the process, from the newly hatched and original manufacturers of the raw material, down to the busy hands that wound and spun it into artificial forms. He must have been fond of entomological pursuits, who first thought of raising and feeding silk worms for the sake of these little oblong balls, and discovered the use to which they could be put. But how should we do without them now?

We have some samples of both the floss silk for weaving, and the sewing-silk manufactured by the Shakers, and are assured by competent judges, that they are quite superior articles. They manufacture also worsteds and woolens; and have some excellent Saxon sheep.

We came away only sorry that we could not have prolonged our visit still further, and are very much indebted to Messrs. Bryant, Burnet and Ballance, for their kind attentions. We ought not omit to mention a good work in which this industrious and thriving people are engaged. Since the cholera year of 1834, they have been in the habit of taking in and bringing up orphan children,—from sixty to one hundred and twenty in number having been during this time constantly indebted to them for homes and an education. That the location is healthy and good care is taken of them is shown by the fact, that in the 22 years only four of them all have died.

We have not room to describe the numerous methods employed by the Shakers to facilitate and diminish every task. Industry, and not sloth, is the inventor. The apparatus by which, with the work of one horse, water enough for all their wants is elevated from a spring in the valley, and distributed through house and yard above; the reaping machine at work in the field, and the horse-power at the barn; the crane that lifts the cleansed clothes from a stationary boiler to which water is directly carried by pipe and faucet, the device by which they are dried, and the mangle that smooths them,—are all productive agents in a prudent and *paying* system. The more work that man can get out of matter, the cheaper servants he will have; the less to employ his hands and the more labor and leisure both for his head.

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Editors Co. Gent:—Perhaps you can inform a subscriber, or no doubt many of your valuable correspondents can, how to tie a cow out to bait, so that she may not entangle herself with the ropes or chain, to her injury. A Sufferer. *N. Y., July* 17, 1856.

Breaking Colts and Other Animals.

The interesting article from E. B. H. on this subject, in the Country Gentleman of 5th June, suggests some additional remarks. There are a few leading rules which may be laid down, as of universal application, in the management of all animals which we wish to subdue and control.

1. No person is fit to govern an animal, who has not complete *self*-control; the first moment that he feels anger or irritation of temper, he should resign his office.

2. The utmost kindness and gentleness must be used on all occasions, so far as is consistent with a convincing exercise of SUPERIOR POWER.

3. Whenever tho whip is used, it is of vital importance that only a *single blow* be struck at a time; for while a single blow produces dread of its repetition, several blows are followed by fury and resentment.

These rules should never be departed from.

First, so far as self-government is concerned, there are several bad results where any degree of anger is suffered to ruffle the mind. In the first place, the person is no longer fit to judge as to proper treatment; for he then wishes to punish and torture the animal, rather than teach it in the best manner. Secondly, animals quickly learn to distinguish the difference between a calm and a passionate manager, and to lose their respect for the latter, although they may fear the infliction of the blows. Thirdly, *uniformity* of treatment is of the utmost importance—punishing at one time, and at another time omitting it, will spoil tho behavior of any animal,—and this is what every man does who allows passion occasionally to control him.

Secondly, the union of kindness and firmness, if continued, will accomplish almost any result. An animal that perceives that its manager is resolved to adhere to his point, will in nearly all cases yield, without resorting to harshness. The most skillful breaker of young steers, we ever knew, adopted this course with great success, and reduced wild, fractious, intractable animals to the utmost gentleness in a few days. First, he turned a few pairs into a large yard together, and for hours did nothing but walk slowly around among them, until they became perfectly familiar with his presence, and no longer avoided him. Next, he occasionally touched them with his hand, until they found that this did them no harm. In a few hours more, they allowed him to handle them freely; and to place the ox-bow on their necks, and to attempt to lead them along with it. If they resisted, he did not frighten with loud words, threats, and blows, but adhered to his point till they yielded. They always found that he *would* have his own way, and they learned to give up the point at once. But if he relaxed or yielded in a single instance, his work was lost. The animals trained by him were the most docile and were under the most complete control, of any to be found in that part of the country; and they had one excellence worthy of note, namely, they would obey when spoken to in a low voice, and did not require, as is too often the case, yells and vociferations, like the scream of a locomotive, to make them mind.

Thirdly, as to the *single-blow* treatment. It appears to be but little understood, but it possesses great efficiency. When any vicious habit is indulged in by an animal, a single and quick blow of the whip, instantly following, will after a few repetitions, at intervals, impress on the animal's recollection, a distinct connection between cause and effect. For example, a cow is in the frequent practice of kicking; but if a single sharp blow follows each attempt, the animal in a short time learns that kicking is always connected with a certain, invariable and unavoidable sensation of a painful and undesirable kind, and the immediate and natural tendency is to desist. But this sense of the connection between cause and effect will not be felt, if more than one blow is given. The writer has seen some fine cows spoiled by "a whipping,"—that is by a shower of blows,—after the commission of some grievous offence. At the same time, he has, with one exception, cured at two or three milkings, the most furiously kicking animals he ever met with, simply by the application of this invariable single blow, after any offence or intended offence. The exception was in case of a cow of remarkable shrewdness, who perceived at once that she had a master who was not to be trifled with in any way, and she consequently refrained from all bad practices so long as he was on hand, but "paid off" afterwards on those less firm and more timid.

In speaking of this *single-blow management*, it must not be understood as applicable to all animals. Some high-sprited horses, for instance, will not bear the stroke of a whip, the terror it produces being unnecessarily severe. Other remedies of a milder character must be therefore employed; but the same general principle must exist in all cases, namely, a distinct, immediate, and invariable connection between offence and remedy.

But if so mild and obtuse an animal as an ox or cow, is spoiled by the practice of *showering* blows upon them, what shall we say of the same practice as applied to horses, which are mostly far more sensitive and high-spirited? We are glad to see such articles as that of E. B. H. tending to deter from so ruinous a course.

Cheap Remedy for Bloody Murrain.

Messrs. Editors—Although the bloody murrain has been pretty freely treated upon in the Country Gentleman lately, and interestingly so by your correspondent J. W. L., who seems in some measure to account for the probable cause of the disease, still I think the subject will admit of further investigation.

The murrain is undoubtedly a disease of very ancient standing, and has probably been the cause of the death of more cattle than all other diseases put together. In its rapid progress and fatal termination, it somewhat resembles cholera. Its appearance in a neighborhood may be regarded by the farmers as a signal of alarm, as single instances rarely occur; although not a contagious disease, the same causes that produce one case are almost sure to produce many. In its first stages it is undoubtedly a disease of the stomach, and from my observation prevails most in wet seasons and upon wet or marshy land, and is perhaps caused by eating some indigestible or poisonous substance.

In fatal cases of this, and perhaps of all other diseases where high febrile action has prevailed, the manyfolds will be found filled with *dry* or *baked* food; hence the medicine that will operate most *speedily* and most *effectually* upon this, will be most likely to be attended with success. My remedy for over thirty years, has been *soft soap* and *molasses*, one pint of each, well mixed before giving, by warming a little and stirring well. I have never lost an animal with murrain, though I have administered the above medicine in several cases, and also once in a *desperate* case of milch fever, followed up by a bottle of castor oil, with the most signal success.

I offer the above as the result of my experience. The trial of the remedy by others will be perfectly safe, and costs but little should it fail. It possesses at least one advantage; most persons can supply it at the instant, which is very important, as the rapid progress of the disease will admit of no delay. R.

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Hon William Jessup, of Montrose, Pa., has accepted the invitation tendered him, to deliver the Address at the New-York State Fair at Watertown.

Our Visit at Sumner's Forest.

We have already mentioned our spending some time at the pleasant residence of Jos. A. Humphreys, Esq., near Versailles, Ky., but have not yet given it the notice justly merited by its extent and the enterprise of its owner. He is one by no means disposed to follow exclusively the "ways of the fathers;" indeed not a few of his neighbors are inclined to look with faithless eyes on the innovations for which he is already responsible, though we think some are now on the verge of conversion. His farm is large enough—about seven hundred acres—to test implements and machinery of almost every kind on a considerable scale and to good advantage—from an improved Plow to a Portable Engine. Not long ago (vol. vi, p. 331) we gave a chapter of his experience with the latter, and shall have more to say on the same subject before the end of the present letter. Much of the farm is in woodland pasture; there are, or were, about one hundred and fifty acres in wheat this year, while the remainder is devoted to hemp, corn, oats, &c. He is feeding a hundred head of mules, and grazing between forty and fifty horses, fifty horned cattle, and about a hundred and fifty each of sheep and hogs.

MULE FEEDING.

It is well known that the production of mules forms one of the largest and most profitable items in the farm economy of Kentucky. The market for them is mainly on the plantations of the Southern States and the West Indies, though some are also brought to the East. They are generally bred in small numbers on an individual farm, but bought up when yearlings to be fed in much larger quantities, until ready for sale—say during the August and September after they are two years old. A breeding arrangement is sometimes made by the owner of the jack, to take the produce of mares through the adjacent country, when weaned, for $50 each, without any charge for siring. But with feeders generally the profit is a matter of some uncertainty, dependent upon the price for which the yearling can be bought—ranging from $80 or $90 up to $100 a head—and that for which he can be sold to the trader a year afterwards—which should average say $130 a piece to pay well for food, risks and expenses. The trader buys up for shipping; ten or twelve dollars each will carry the animals to New Orleans, and there they will range according to size, appearance and quality, all the way from $75 up to $300. Where circumstances favor the seller when they are ready for market, the profits are perhaps larger than can be obtained from a farm in any other way. But some capital and considerable experience and good judgment are requisite for success.

The mules are fed with oats or rye cut up in the straw, corn in the ear, or corn and cob-meal, and sometimes with grass mowed from day to day. Kept in an enclosure where water is at all times accessible, they do not require a great deal of attention.

Mr. Humphreys had several good mules of his own breeding. His horse stock included three large mares sired by imported 'Gilbert,'—two of them with colts by the Clydesdale horse Potent, belonging to R. A. Alexander, and purchased by him of the Scott Co. Importing Co., for $3,000—the third having a colt from a Black Hawk stallion. Mr. H. has himself a fine young Morgan horse, procured from Leroy Mowry, Esq., of Washington Co., in this State. Although horses are very high now in Kentucky—probably owing to the attention given of late years to mules, raising the latter is thought of the two to bring better returns, we believe—unless horses of pure blood and the finest quality may be excepted.

CORN GROWING.

We obtained a few facts in relation to the common manner of growing corn in Kentucky, in conversation with Mr. H., which may be of interest, as it is the main crop of the State for feeding purposes. Stock of all kinds are fattened upon it—and indeed, there is scarcely a meal the year round for master or servant on a southern estate, to which this all-useful grain does not contribute in some of its manifold forms While it is thus planted in too large quantities to admit of the hand culture that the crop here ordinarily receives, the importance of keeping the earth about it loosened and free from weeds, is by no means overlooked. The ground is laid out in hills four feet apart each way, and two or three stalks are left to the hill. It is then plowed with a one horse plow, or cultivated, from three to occasionally as many as seven times in the course of the season. Mr. H. runs two furrows between the rows when the corn is about six inches high, to throw the earth toward the hills, and then a third furrow with a shovel plow, between the other two. When up somewhat higher he uses a cultivator once or twice to a moderate depth. The month of July is that in which it is most important to the crop to have favorable weather. This year it was retarded somewhat by the early drought, and from the fact that many fields which failed to germinate had to be replanted, but appearances were in favor of a fair yield.

The corn when ripe is cut about a foot from the ground, and put in shocks—one, perhaps, to every sixteen hills square—and what is wanted to crib is soon after husked out. But cattle feeders ordinarily feed from the shocks as wanted. Each contains in the neighborhood of a barrel or five bushels of corn, and will be sufficient for ten head of cattle a day. It is customary to enclose the herd in one field to-day, and in a second to-morrow, and so on—admitting the hogs to what they leave behind them; for these animals are excellent scavengers, and will fatten well on what cattle have trampled down or refused.

VARIOUS IMPLEMENTS AND THE ENGINE.

Among Mr. Humphrey's implements, of which he has a large stock, we noticed plows made by G. C. Miller & Co., of Cincinnati, of Gill's, Garrett's, and other patents, and Ruggles, Nourse & Co.'s subsoil. He has a large eight-horse sweep power, made by J. A. Pitts & Co., of Buffalo, of which he spoke in the highest terms, but which has now had to yield to the encroachments of steam.

We witnessed the operation of the engine during one day of our visit, and were glad to find it so entirely successful in every particular. A negro who acts as engineer, had never seen any machinery of the kind before, but has no difficulty whatever in its management. For simplicity and compactness it is certainly unequalled. It was used with one of Sinclair's largest sized Cutting Boxes, and the rapidity with which the bundles of oats were passed through, demonstrated the advantage of the motor. The cut straw fell from the knives quite as fast as an active man would desire to shovel it away, while two and sometimes three were engaged in feeding. The work done with Pitts' Corn and Cob Crusher was also very satisfactory. Less than a day's work of these machines will supply feed for Mr. H.'s mules for a fortnight. The expense attending it is very small; the fuel is almost nothing on such a farm.

We were convinced by the trial that, as Mr. H. remarked, the general farm use of steam power, is only a *question of time*, and we think that Messrs. Wood & Co. (of Eaton, in this State,) deserve great credit, as well for the excellence and beauty of their workmanship, as for the simplicity and effectiveness of the engine. Mr. Humphreys' experience only convinced him of the correctness of his calculations that steam would be a very considerably cheaper laborer than horses.

Had circumstances permitted, we should like to have seen the operation of Moffit's Patent Thresher, Separator and Cleaner, (made by Owen's, Lane & Dyer, of Hamilton, O.,) of which Mr. H. spoke in high terms. He had one of Emery's Cider Mills, which he had found to meet all his expectations, both for its own and other purposes, such as lard pressing and the like.

We should not leave 'Sumners Forest,' without wishing its proprietor every success in his pursuit, and adding a renewal of our acknowledgments for the many facilities he afforded us in becoming acquainted with his portion of the State. We came to Lexington, June 29th, and there must date the concluding letters in this already extended series.

* * *

One Way of Keeping Mice from Fruit Trees.

Messrs. Editors—I observed notices in several of our papers the last spring, that the destruction of fruit trees by mice had been very general in Maine, Massachusetts, and many other parts of the country. I thought of sending you my experience on the subject; but should have neglected to do so, had it not been for your remarks preceding the publication of a private letter on that subject, in the Cultivator of July, requesting information on the subject, thereby hoping to discover a remedy.

Without claiming to have discovered a remedy, I will give you my experiment and results, which proved successful in one instance, at least.

A few years since I set from thirty to forty thousand seedling trees, and cultivated thoroughly for two years. The trees grew poorly on account of drouth or some other cause, and promised a poor return for my labor. I concluded to try a cheap experiment (although I had no book authority for so doing,) which was to shade the roots by neglecting to cultivate, and permit the grass to grow. The trees assumed a healthy appearance, and have grown rapidly the two last years. Last fall the grass in the nursery was luxuriant, and mice as abundant as locusts in Egypt in olden time. The destruction of the trees seemed inevitable. Streets were laid out in every direction, and roads built, overhung by a grassy network, to protect the inhabitants against a snowy blockade. but having ample facilities for girdling every tree. What was to be done? The idea of exterminating the mice was out of the question. I therefore proposed a "compromise." I was to provide comfortable quarters and provisions for the winter, and they should emigrate. Accordingly I prepared dwellings by setting stooks of straw one or two rods from the outer edge of the nursery, in sufficient numbers to accommodate the living host. After which I made proclamation to the different tribes, through the agency of about a hundred hungry barn-yard fowls, preceded by a dish of corn scattered through the center of the nursery, and repeated for several days. The result was the mice took refuge in the stooks of straw, where I fed them from time to time through the winter, and my trees were not injured. The expense was trifling compared with the result. I do not think my nursery would have been worth ten dollars this spring, if no means had been used last fall to save it. I was induced to this course from a practice I have followed for several years, of scattering corn in my planted fields, thereby saving the crows the trouble of pulling up the young plants to obtain food. It has always saved my crops from their depredations. Wm. D. Marsh. *North Clarendon, Vt.*

* * *

The Cayuga Co. Ag. Society will hold its sixteenth annual fair at Auburn, Sept. 17, 18 and 19. We are indebted to our friend John B. Dill, for its handsomely got-up Premium List. T. S. Bartley, President; H. T. Cook, Secretary

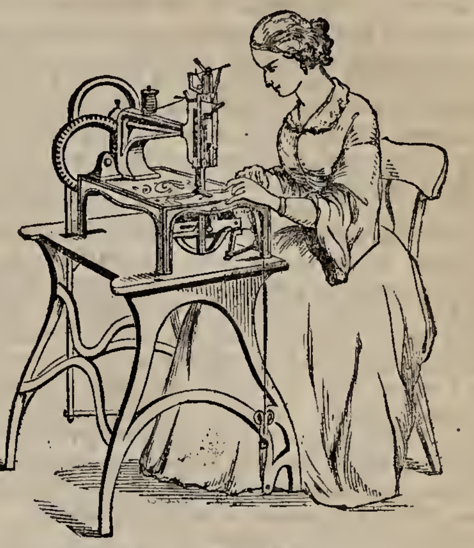
Experience with Rose Bugs.

Messrs. Editors—If K. S., of Vernon, Conn., is infested with a tenth part of the rose bugs, with which I have had to contend, I know how to pity him. As you promise an article on the subject from Dr. Fitch, which, from his able pen, will be interesting and instructive, I leave to him to dilate on the pedigree and habits of the insect. And in the meantime, as you invite communications from any of your readers, I beg to inform K. S. that after a close intimacy of seventeen years with his bugship, it perhaps may afford him some consolation to learn that there is every prospect of his intention to cut my acquaintance. This cannot arise from any coldness on my part, for no visitor could have met with a warmer reception than he has invariably received at my hands. His annual visit commences about the 20th of June, and continues about three weeks. On his arrival the whole family, male and female, turn out to meet him, each provided with a bowl of boiling water, into which he is unceremoniously introduced. In this way we must have destroyed millions annually, but without any apparent diminution in the next year's visitation. They unfortunately did not confine themselves to the roses and other flowers, but spread over the apple orchard, and, as the trees were large, there was no chance to get at them, they literally buried themselves in the apples, and destroyed the whole crop. The cherries, too, they completely ruined, and they attacked the grapes and raspberries, and if I had not watched them very closely they would not have left me one. They also attacked my peaches, but as the trees were young I could reach the bugs, and by looking the orchard over two or three times a day I saved my crop. This state of things continued for many years, when the bugs began to spread themselves more generally over the farm, till the corn and clover fields would swarm with them. Last year there was a very decided falling off in the number, and this year they have scarcely done any mischief. So if they have only just found their way to K. S., he may reasonably infer that in the course of 14 or 15 years they will take their departure. In the meantime if he wishes to have any fruit or flowers, he will have to wage an annual three weeks' war, and he cannot use a more effective weapon than a bowl of boiling water.

Since writing the above, the Country Gentleman of the 24th of July has arrived, and I have enjoyed a hearty laugh at the troubles of Ida, so graphically portrayed. I have tried the cold water system, myself, and with the same result; it is useless to attempt to drown them, and when by "pulling and hauling, kicking and crawling," they have woven themselves into a compact ball of bugs, I had to empty them out on a hard piece of ground and stamp them to death with my feet. This was a disgusting operation, and I look upon the hot water as a grand invention. It is instant death to the bugs, and by having a large kettle boiling, and emptying the bowls as soon as the water ceases to produce instant death, and calling out all hands, you may do a wonderful execution in a short space of time. My experience agrees with Ida's as to poultry. I have not been able to discover any of the feathered tribe who will eat them, nor can I blame their taste, for they are loathsome brutes. Charles B. Meek. *Canandaigua, N. Y., July* 25, 1856.

* * *

Further Importations.—The editorial correspondence of the *Ohio Farmer* states that the Shakers of Warren Co., in that state, received "nine head of Durhams last week from England. One yearling bull, two three-year old cows, three yearling heifers, and two suckling colts. Good judges say they are superior animals."



Singer's Sewing Machine,'

Represented in the above engraving, is one of the most useful of a class of labor-savers now coming into very general use. Patented first in 1846, it is at the present time constructed with improvements, patented also from time to time, no less than sixteen in number.

We had the opportunity of seeing a machine in operation the other day, at a branch office recently established at 387 Broadway, in this city. The "No. 1 size," which costs all complete for transportation and with printed directions for use, $125, will stitch every kind of article from the finest linen to heavy leather harness, by a simple change of needle and thread. We found the operation of the machine about as simple as possible, only requiring a few minutes practice to enable one to do the work of many busy hands, the advantage derived being greater in proportion to the fineness of the work done. The length of the stitches can be made to vary from four to forty in the inch, each is exactly alike, and in regard to their strength, we were surprised to find that the thread would break or cloth tear out, before they would ravel beyond a short distance—less we presume than in sewing by hand.

One of these machines could not fail to pay for itself in a very short time, in any large family. Where numerous servants are to be clothed, or much work of almost any sort done with needle and thread, is required, we recommend it to the attention of all concerned. See advertisement in another column

* * *

Turning under Indian Corn and other Green Crops.

Messrs. L. Tucker & Son—In perusing the July number of the Cultivator, under the head of "Green Crops as Fertilizers," I was surprised that Mr. P's experience with green corn had been directly the reverse of mine, which if you think worthy of notice you are welcome to. Although at present a 'Wolverine,' I judge that my experience in the Keystone state will not be out of place. In the spring of 1851, we sowed broadcast two acres of ground with yellow dent corn, for the purpose of soiling our herd of milch cows; but the season proving wet, and finding that we had sufficient pasture, we determined to plow it under, and sow purple top turnips broadcast. We did so by first rolling the stalks down, and depositing them with a good plow eight inches below the surface. Fermentation immediately ensued, and in 30 days hardly a vestage of the stalks could be discovered. The seed was sown, covered with a brush harrow, and then rolled. The turnips grew finely, in a few weeks covering the ground entirely, and we gathered from those two acres upwards of 1,600 bushels.

I have used a number of green crops as fertilizers, and am convinced that it is the cheapest method of manuring. I have turned under oats, corn, buckwheat, clover and peas, each with good success. The great difficulty is that our farmers are afraid of getting it too deep, and having its substance washed away into the subsoil. They cover it with only three or four inches of soil, and the natural consequence is that the soil dries out, the moisture from the decaying substance passes off instead of being retained, and it leaves it like a bundle of dry sticks. If I could get it a foot or fifteen inches below the surface, I should consider myself the gainer, as it then keeps the subsoil loose and friable, which is more important than the surface for root crops. In this state clover is used more than any other substance as a manure. It is turned under when in full blossom every three years, and sown to wheat, followed by corn, oats, and seeded again. In this way our land is growing richer instead of poorer. But I am afraid of taking up too much of your time, so I will close. You shall hear from me soon again. WM. F. SANDS. *Jonesville, Mich.*

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Experiments with Potatoes—Crops in North Carolina.

EDITORS OF COUNTRY GENTLEMAN—On the twentieth of February last, I planted one hundred and fifty hills of Irish potatoes, with much care, to test the comparative value of such manures as were within my reach. The soil was a strong loam, exposed to the south, and protected on the north by a good plank fence. I divided the ground into four rows, side by side, the first of which I manured by throwing a good shovelful of well-rotted horse manure over the setts, and then covering it with soil. No. 2 was treated with old chips. No. 3 with charcoal refuse, and No. 4 with night-soil in smaller quantities, other things being equal. And now for the result.

No. 1, when dug a day or two since, yielded a bushel and a half of good sound tubers—No. 2 yielded three pecks, also sound and good, but smaller than No 1. No 3 also yielded three pecks of the soundest and best flavored potatoes for the table that I have seen this season. No. 4 appeared to have grown very thriftily, but for some cause when I dug them, there was not half a peck of sound tubers in the twenty-five hills, although there was a very good yield of decaying ones.

By the side of these, although planted some days later, were some without manure, with which I tried the difference between whole and cut tubers, which resulted in a gain in favor of whole tubers of twenty-five per cent., and I find now that forty hills of the uncut and fifty of the cut ones, have to be dug to obtain a bushel, which are both affected with rot. Hoping that these few notes may lead others to make trials and give us their experience, has caused me to lay them before you, and perhaps it is but just to state that excessive drouth probably operated in favor of the whole tubers, as we have had very little rain for two months past.

Our wheat and rye harvest is over, and the crop is good, sufficiently so to justify the expectation that this will be a good wheat country, and yield fair returns to those who cultivate it. Oats are very short, but corn promises well throughout this whole region. As regards meadows, we have none worthy the name as yet, as our winters are so open that cattle frequently live in the woods all winter without any feeding, and keep themselves fat, but when once scientific farmers come among us and cultivate our lands, a change will come over the face of some of them.

I know of no place where equal advantages can be obtained for a small outlay, as wood-land can be purchased for from twelve and a half cents to five dollars per acre. Then the climate is one of the most salubrious in the world, combining the pureness of the Italian atmosphere with the freshness of Switzerland, and, in truth, the mountain region of North Carolina is neutral ground between the racking pains of Northern rheumatism and the malaria and fevers of the extreme South. Fruits of all kinds that have been introduced, thrive and do well, while our forests abound with wild fruits and game. WM. BEAL. *Murphy, Cherokee Co, N. C.*

* * *

Purchases and Importations.

DR. HERMAN WENDELL, of this county, has recently added to his herd of Short Horns, two very fine heifers, viz:

Sonsie 10th—Red and white, bred by L. Spencer, Esq., of Westchester county, got by his imported Duke of Athol (10150)—bred by Thomas Bates,—out of his imported Sonsie 8th by 2d Cleveland Lad (3408), (—who was the sire of the celebrated Grand Duke (10284)—G. D. Sonsie 7th, by 2d Duke of Northumberland (3646); G. G. D. Sonsie 2d by Prince Edward (2402); G. G. G. D. Sonsie by Sultan (1485)—by a son of Trunnel (659),—by Middleton (1238),—by Punch (531), &c., &c.

Lady Barrington 20th—White, bred by Hon. R. N. Watts, of Grantham Hall, Canada, got by American Comet out of Lady Barrington 7th, bred by Mr. Vail —out of Lady Barrington 4th by Meteor (11811),—imported Lady Barrington 3d by Cleveland Lad (3407)—Lady Barrington 2d by Belvidere (1706),—Lady Barrington by a son of Mr. Mason's Herdsman (304),—Young Alicia by Wonderful (700),—Old Alicia by Alfred (23),—by Young Favorite (6994), a son of Favorite (252), &c.

DR. WENDELL has also recently purchased in England, from Robert Bell, Esq., two very fine heifers, now on their passage, viz:

Agnes—Red and white, got by Mr. Bates's Earl Derby (10177)—a half brother of the celebrated Grand Duke (10284),—out of Ariel by 2d Cleveland Lad (3408),—Annabella by 4th Duke of Northumberland (3649),—Arabella by Duke of Cleveland (1937), —Acomb—bred by Mr. Bates,—by Belvidere (1706), &c., &c. And,

Famous—Roan, got by Earl Derby (10177); out of Fowberry by 2d Duke of Oxford (9046),—Florence by 2d Cleveland Lad (3408),—Fidget by 2d Earl of Darlington (1945),—Fletcher by a son of Young Wynyard (2859),—bred by Mr. Bates, and descended from J. Brown's Old Red Bull (97).

Both the above heifers are in calf to Mr. Bell's bull, Gen Canrobert (12926), who was got by the 4th Duke of York (10157) out of Phoebe by Grand Duke (10284)—Place by 4th Duke of Northumberland (3649), &c., &c.

Attention is requested to Dr. WENDELL's advertisement in another column. In a private note, he informs us that the heifers above mentioned sailed on the 27th June, so that he is now expecting their arrival. "Good judges say they are both beautiful animals"

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☞ Our friend Prof. NASH, late of Amherst, Mass., has become associated with M. P. PARISH, in conducting "The Plough, the Loom and the Anvil," a monthly journal published in New-York, at $2 per year.

SCIENCE.—For all practical purposes true science is *a thorough knowledge of a man's own business.* And a farmer who knows how to make the most profit with the least amount of labor and capital, who understands how to make the most of his land without impoverishing it, but rather continually improving it, is truly scientific.—*Rural American.*

Diseases of Animals, &c.

Editors of Country Gentleman—Having often seen requests in different papers, for remedies for different diseases in cattle, horses, &c., and having myself arrived at the age commonly allotted to man, and having seen some of the good effects of experiments, and feeling it to be a duty to do as much good as possible when I have an opportunity, I send you a number of recipes.

Cure for Hollow-Horn in Cattle.

Take a tea-kettleful of boiling water; turn the head of the creature one side so as not to scald the hide, then pour the water on to one horn until the creature feels it. Then on to the other; so alternately, which will probably produce considerable perspiration. Then give 2 ozs. or more of good mustard seed in some feed.

To Prevent Hollow-Horn.

Cut off the end of the tail as far as it is minus bone, whenever you discover the hair rolled or twisted, if the weather is warm and propitious, and not likely to freeze. Then feed them well, and there will be no danger.

For Cattle that have Eat too much Corn or other Grain.

Take one quart of good yeast, mix a half-pint of human excrements, and pour it from a bottle down the creature's throat, and I think you will soon hear from it.

Cork on Oxen's Feet.

Put on British oil.

Cure for Foul in the Feet.

Cleanse between the hoofs with a rope; then put in powdered blue vitriol.

For a Horse Kicked in the Stifle.

Put in fine salt often, and nothing else, or bind a small bag of fine salt on to the wound.

For a Flesh Wound on a Horse.

Boil the bark of green osier (Dog Mavamouse) to a strong decoction, and wash the wound often.

To Keep Foxes from Killing Lambs.

A number of years since a neighbor told me that if I would put sulphur on the fence around a lot, foxes would not enter it. I thought perhaps that putting it on to the lamb as soon as found might be better, which I have practiced since, and have not lost a lamb by them, to my knowledge. Yet an old female might not fear sulphur any more than an old sinner does brimstone.

Sheep.

I some time since had a distemper among my sheep, that no one could account for. They would begin to stagger, and within an hour or two would die. As soon as moved, there would be a very loathsome and bad smelling yellow water run from their noses, which soon became intolerable. I put tar on stones (which were plenty there) and then put plenty of salt on to the tar, which cured them completely after eating it. P. L. E. *Richburgh, N. Y.*

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Wind Galls.

I do not believe that wind galls can be cured without running the risk of killing or ruining the horse, as they are caused by the undue secretion of the synovia or mucous fluid, that lubricates or greases the joints, brought about by too hard use. A dirt floor or well littered stall, moderate use and good rubbing may prevent them from increasing, and they may be cured by lancing and bandaging—but lancing may cause inflammation and consequent stiffness of the joint. I have known one case successfully treated in this way, but I would never try it, believing that the risk is too great for what is no injury, but merely a blemish. R. C. *Beaufort, S. C.*

Currant Wine.

[In compliance with a recent request of a correspondent, we asked for information in relation to the manufacture of currant wine, of Dr. Sylvester of Lyons, N. Y., who has been very successful in making currant wine, for several years past, and who provides it exclusively for medicinal purposes. The following is a statement of the method, which he has kindly furnished us.—Eds.]

Wine can be made from the juice of the currant, combined with water and sugar, in almost any proportions, but the *quality* will depend upon the porportions and mode of manufacture.

The currants should be *fully ripe*, and grown with a full exposure to the sun, except such shade as may be given by their own bushes, properly trimmed and cultivated. The currants should not be *over ripe*. Every one has probably noticed that currants eaten in September and sometimes earlier, have an acid flavor, which is entirely different from the rich acid peculiar to the well cultivated currant. If over ripe they are usually shrivelled a little, and are then unfit for first quality wine.

The currants should be picked and the juice expressed from them before fermentation commences, which will happen in a day or two after they are gathered in warm weather. In a small way, the juice may be expressed by squeezers. I usually grind them in a hand cider mill, several bushels at a time, and express the juice in the press. Let the juice be well strained and added to the sugar, and then add water until all the sugar is dissolved; put it in the cask, and fill according to the receipe No. 1.

I have tried various proportions. In 1850 I made seven barrels according to the recipe marked No. 1, and have three or four barrels now on hand, so that we are sure it keeps well, being now six years old, and is generally declared to be very superior, though some think it too sweet. It is prescribed by physicians as a tonic, and sells readily at $1 50 per gallon.

I shall make the next according to recipe No. 2, which will be less sweet, and *I think* will keep well.

Recipe No. 1.—10 gallons pure juice.
100 pounds good sugar.
Water sufficient to fill 40 gallon cask.

Recipe No. 2.—10 gallons pure juice.
80 pounds good sugar.
20 gallons water.

Mix well, and put into a very strong cask, (alcohol barrels,) in a cool, dry cellar, *and bung up tight, vent hole and all.* If the cask is old, do not bung up tight; if you do you may find your liquor turned into *low wines* on the cellar bottom. If you do not stop your barrel tight, it is best to put a piece of gauze over the bung-hole, to keep the flies, &c., out. Let the wine remain in the cask three months, and carefully rack it into another before removing the "original package." After nine months more it will be fit to bottle, and grows better every year for seven years, and how much longer I am not able to say. The manner of using the currant wine, to obtain the greatest tonic effect, will be given a future No. E. Ware Sylvester. *Lyons, N. Y., July,* 1856.

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Advice to Young Farmers.—Allow me to say, to young farmers especially: Let us be studious and inquisitive, as well as laborious; let us be simple and frugal in our habits; avoid useless expenditures; leave fine dress, and fast horses, and showy dwellings to those who really need such things to recommend them. Let us ever remember that for health and substantial wealth, for rare opportunities, for self-improvement, for long life and real independence, farming is the best business in the world.—*Goldthwait.*

The Garden Raspberry.

Editors Co. Gent.—In all the American books I can find no mention of a first quality, *hardy* Raspberry. In the several varieties recommended for cultivation, they are spoken of as requiring winter protection by bending down and covering with earth, which is a great labor, besides breaking multitudes of the canes. Now, I have had two varieties of Red Raspberry in cultivation for eight or ten years past, which are *perfectly hardy*, and have withstood every winter without any sort of shelter or protection. They bear abundantly—I never saw better bearers. The fruit is large, delicious in flavor, and the two together are a month (in open grounds,) to six weeks in bearing, according to exposure. If located on the north side of a fence they are later in bearing than on the south, thus prolonging the season.

I pretend to no originality in, or invention of these fruits. I obtained them from a garden in my neighborhood, which had been planted at great expense by a gentleman of taste in such subjects—the fruits, so far as I could learn, were "far-fetched and dear bought." The owner dying, the ground was devoted to other uses by his successor. The gardener who sold them to me, called one the "Red Prolific," the other "Red Antwerp;" but I can find neither of them described in the pomological books or nursery catalogues, and I am certain that neither of these are the *true* Red Antwerp, which are not hardy. Mine grew much stronger, higher, and larger than the Red Antwerp did in this vicinity. Hearing so much said about winter covering for the raspberry, I had them carefully bent down and covered one winter, and nearly ruined them by the process. Since then they have had no protection whatever. They withstand the cold of this latitude, 42° 45″ north, as well as the wild raspberry of the woods, *or any thing else—never missing a full crop;* and my small plantation has given me several bushels every season. They have never been marketed till this summer, and having leased my farm garden-grounds to a Scotch gardener, he sends them to town, where they are pronounced by the fruit dealers the best they have had, although the *true* Red Antwerps—requiring winter protection—are sent in for sale.

Having seen frequent inquiries in the papers for *hardy* raspberries, and believing that the varieties I have so long cultivated comprise the most desirable qualities for popular culture, I have advised my gardener to offer a part of his young plants for sale, which will be seen in the advertisement accompanying this for your paper. I grow them together promiscuously in the rows, which I think is an advantage to their abundant bearing, and they are easily distinguished by the color and character of their wood and fruit. They should be fairly cultivated, in good ground, three to five canes in the hill, and cut down in the fall or spring to three or four feet in height, according to the strength of the canes. Tied at the top with a piece of twine, they need no additional support, the natural strength of the canes being sufficient. Owing to their strong growth, I set the rows six feet apart, so as to use the plow between them, and four feet apart in the row. When first planting, I put but one cane in a hill, as that throws up plenty of suckers for the coming year. The "true" Red, or Hudson River Antwerp, compared with mine, has proved a failure in *this* vicinity. Yours truly. Lewis F. Allen. *Black Rock, N. Y., August,* 1856.

Notes and Comments.

Rolling Wheat.—In answer to queries in your paper of the 24th of July, I beg to suggest to J. O. Marsh, that unless he drains his land thoroughly, neither deep nor shallow plowing will prevent his wheat from freezing out. Why does he wish to roll his wheat land this fall? Unless very lumpy, it does not need it. Better for his wheat to leave the land a little rough through the winter, and roll as soon as dry enough in the spring. If he feels that he must roll it this fall, better do it before sowing.

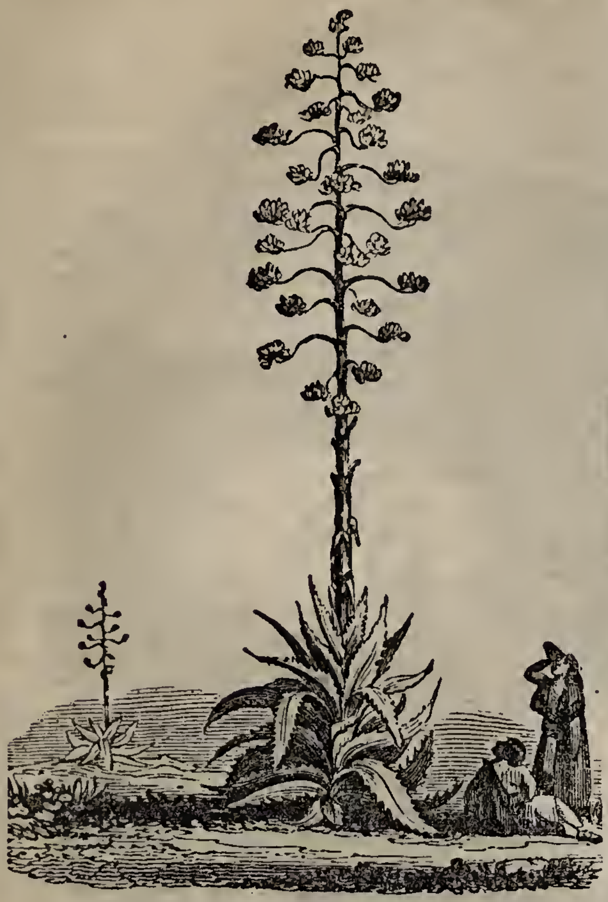
Planting Balsams.—If E. L. Coy wishes to succeed in planting out Balsams, let him shun pedlers, whose trees are generally torn up out of swamps, and purchase from nurserymen; he will find it cheaper in the end. I consider the spring the best time, but if properly planted, they may be made to grow at almost any season. Dig a large hole; in filling in, use chip manure and fine mould; press the roots firmly with the feet, commencing at the points of the roots; use no water, and if they do not live, I should infer that the work has not been performed thoroughly.

Rose Bugs.—I have just received the Country Gentleman of the 31st of July, and have read the interesting article on rose bugs. As far as my experience goes, however, I cannot agree with Dr. Fitch as to their natural enemies. After close observation I never yet saw a bird that would touch them, and as to poultry, I am decidedly of Ida's opinion. Besides, supposing the latter to be destroyers of the bugs, they would be unavailable, because they could not be admitted where the bugs 'do most congregate,' the cure would be worse than the disease; and if the insects have to be caught and carried to them, boiling water is a shorter process.

Tarring Sheep.—In the same paper is a paragraph headed "Sheep," and commencing, "Keep in a trough, under cover, accessible to your sheep, from now until fall, tar and salt." Now I think I have a better contrivance than a trough. I got the hint from a Canadian friend, ten years ago, and have adopted it ever since with good success. Take a stick, of any kind of wood most convenient, about thirty feet long and large enough to square seven or eight inches. Square two sides for top and bottom, and at every twelve inches bore a hole, with a four inch auger, about four inches deep. My modus operandi is this: One of my boys goes ahead, dropping salt into each hole, and I follow, smearing the edges of the holes with tar. The sheep dive their noes down for the salt, and they cannot do this without getting them thoroughly tarred. This should be repeated at least once a week during the fly season. C. B. Meek. *Canandaigua, N. Y., Aug.* 2.

To Prevent Bucks from Fighting.

Messrs. Tucker & Son—Formerly I annually lost several valuable bucks by fighting; some killed immediately by their necks being broken, and others would become fly-blown, or poisoned by rubbing against stumps which were overgrown with poison vines, and to prevent a lingering death I was compelled to examine them often and use quite an amount of oil of spike and turpentine. I now cut pieces of harness leather, and cut two holes in the upper side of each piece, and tie to each horn, which will effectually prevent them from fighting; for they cannot see each other in front, but can only see each other when by their side. The expense is trifling, and will save the lives of many animals, and allow the owner to rest contented that his bucks will not harm each other. I feel induced to make this known, not only to lend a helping hand in the hour of trouble, but to serve as an answer to the many letters of inquiry, written to me in regard to the above trouble. J. S. Goe. *Brownsville, Pa.*



The Century Plant—Agave Americana.

The *Century Plant* for many years in the possession of the late Stephen Van Rensselaer of Albany, and for the last twenty-three belonging to Henry Van Rensselaer of Ogdensburgh, is now in full blossom. Some idea may be formed of its rare beauty from the following description:—Height, 30 feet, circumference of trunk, 10 feet; breadth of leaf at the trunk, average, 1 foot; length of leaf, 9 feet; number of leaves, 100; circumference of base of upright stem sustaining flowers, 2 feet; number of blossom-bearing branches, 57; whole number of blossoms, about 18,000; and it is worthy of remark that the entire stem, which is twenty-six feet long, has grown since the last days of March.—*New-York Observer.*

The flowering of the above noble plant is, and is likely to be a rarity for some time yet, as it requires a considerable number of years with the best care in a northern climate to get it into flower, whereas in its southern home it will flower in a few years, (from 10 to 20,) thus dissipating the common error that it flowers only once in a 100 years, the period not being confined to any number of years, but to the quickness of its getting to the proper size for blossoming.

The first that flowered in England is said to have been at Mr. Cowell's, at Hoxton, in 1729, since which time it has become common enough to scarcely deserve the name of rarity.

It will be reccollected by many in this immediate neighborhood, that in the year 1842, a specimen flowered in the garden of the late Stephen Van Rensselaer of this city, rising to the height of 22 feet; (it is related that one grew to the height of 40 feet in the King of Prussia's garden.) There are quite a number of large size still at the Patroon's, one of which is now under process to assist the flowering, which is anticipated next spring.

In the summer of 1846, two plants were on exhibition, one in New-York and the other in Boston, brought by a gentleman from Jamaica.

The Century Plant or *Agave Americana* of botanists, is a native of South America, belonging to the natural order of Bromeliaceæ, or pine-apple family. These differ from the Aloe in having their central leaves closely folding over each other, and embracing the flower-stem in the center; so that these never flower till all the leaves are expanded, and as soon as the flowering is past, the plant dies; whereas the aloes and kindred plants have their flower-stem on one side of the center, and do not die after flowering. It is quite easily grown, and when of large size a very conspicuous object if placed on the lawn. If kept nearly dry during the winter, a spot under the green-house stage, or any spare corner, will keep it very well, although of course will retard its period of flowering in proportion to the slowness of its growth. E. S.

A Suggestion.

Would not rope instead of chain, and Indian rubber or leather, instead of iron valves, be a great improvement on the continuous iron chain pump, now in use? It would work with little or less noise; be free from rust; the boxes or valves could be made to set closer, and at the same time not wear away the tube of the pump so much in working, and if the rope was saturated with some kind of preservative gum, or even without, would be far cheaper and nicer than the common chain pump; knots tied in the rope, at proper distances, and the pieces of rubber or leather, with a hole a little less than the size of the rope, slipped on, one over each knot. Could not mechanics in different parts of the country make money by manufacturing them?

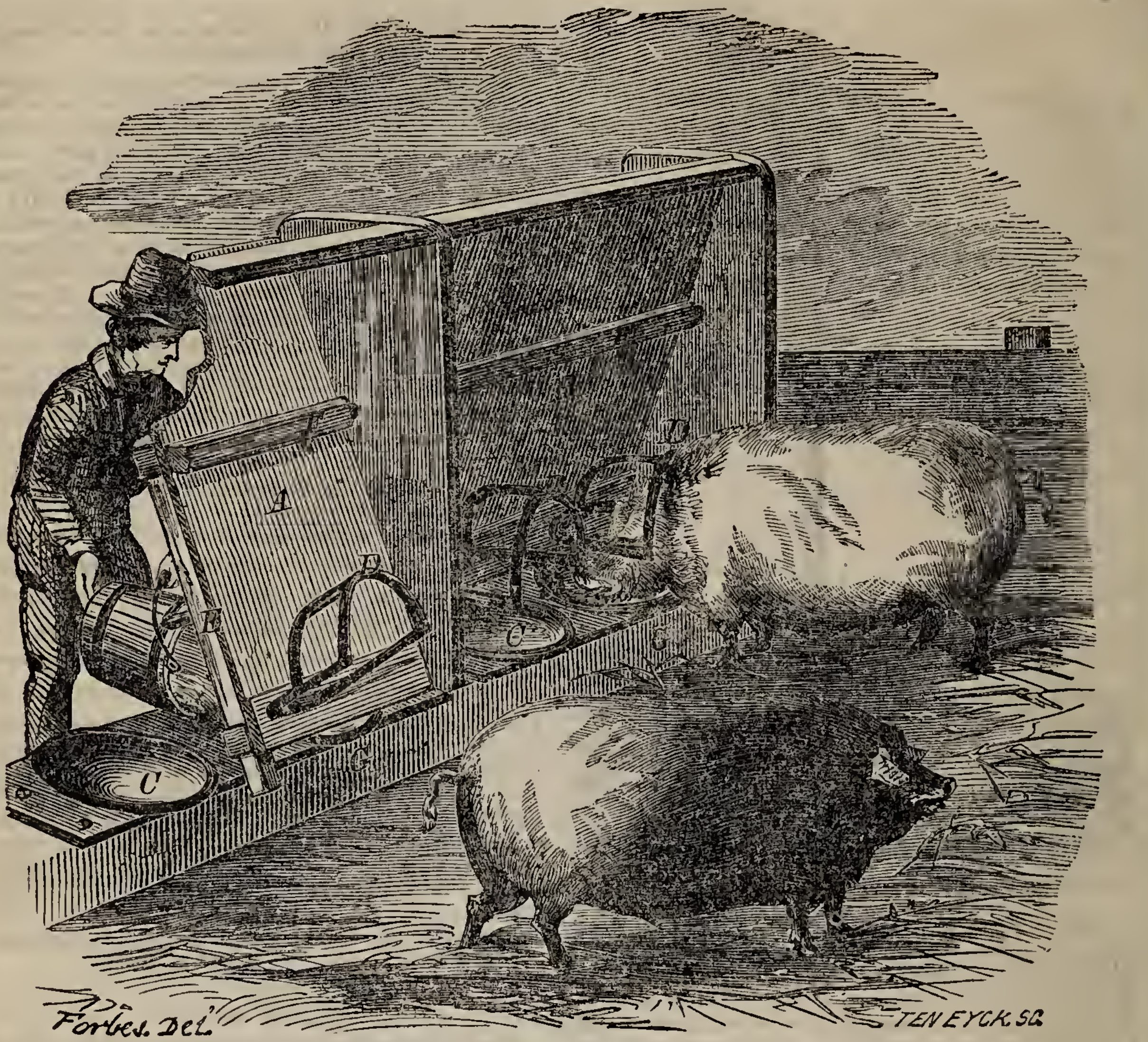
Yet, after all, for *wells*, perhaps the bucket is better, where there are *stout* people to use it. T.

"Garden Moles."

Some one of your numerous correspondents, Messrs. Editors, inquires whether there "be any method to keep moles out of one's garden?" Yes, they can be fenced out, but it would cost too much. They can be destroyed, however, in the garden, much easier and cheaper. Collect earth-worms and destroy their life, and then mix them with the powder of *nux vomica* or strichnine, and let them thus remain for 24 hours, and then take the worms and place them along the routes and holes of the mole. Thus you may destroy "garden moles," which, by the way, are your faithful coadjutors in the destruction of grubs and worms, many of which become winged insects, terribly destructive both to fruits and vegetables—sparing not even the flowers.

You have now the mode of destroying these "invaders" as they are regarded, generally; also good reasons for sparing their lives, in order that they may work for you. It is hoped you will duly consider the matter before proceeding to the work of killing "garden moles." Columella.

Turkeys.—Editors Country Gentleman: I have been raising Turkeys in a small way, during the last two years, on my farm, and I find them affected with a disease, for which I am anxious, if possible, to discover a remedy. It first exhibits itself in a swelling in front of the eyes, which frequently extends so far as to render them almost blind. They fall into a drooping, dull state, and sometimes, indeed I may say generally, die. I know nothing of the cause, the name, or the proper mode of treatment for this disease, and will be glad if you, or any of your contributors, can furnish me with the necessary information on these points. J. S. S. *Port Hope, Canada.*



Abbe's Patent Pig Pen.

The advantages of this pen are, 1, that it is so constructed that the animal cannot get his feet into the trough, thus preventing it from dirtying or wasting his food—2, the trough can be filled or emptied without the person getting into the pen or reaching over it, and during the feeding the hog is kept entirely clear of the trough. Any further information desired in relation to it, may be obtained by addressing Wm. P. Thompson, Scarsdale, Westchester Co., N. Y.

Vinegar Plant.—The opinion having been frequently expressed that this plant was nothing more than the well known substance called "mother," we copy the following paragraphs on the subject.

The *Rural Intelligencer* says—"We have spoken several times of the Vinegar Plant, a sample of which we have growing in the Rural office, converting sweetened water into vinegar. It floats upon the surface, like a piece of spongy leather, and so much resembles "mother," that many persons who see it are quick to pronounce it nothing more or less than that. We think, however, that is a hasty conclusion. It is of a closer and firmer texture than mother, and rests altogether upon the surface of the liquid; whereas "mother" is a less substantial fungus that settles to the bottom."

The *Rochester Democrat* says—"This plant has been known here for several years, and those who have possessed them, found them to produce excellent vinegar, in sufficient quantities for their ordinary purposes, so long as they were properly attended to. Each month a new leaf grows on the upper surface of the old one, which is at first a thin film, and gradually becomes a thick gellatinous substance. The new "leaf" may be removed, and will produce not only vinegar, but propagate other plants, indefinitely. This plant is not a fungus formation, such as we find in vinegar, but appears to be a distinct semi-vegetable growth."

Tennessee State Fair.

Franklin College, Tenn., July 23, 1856.

Luther Tucker, Esq.—The officers of our State Fair, which will open at Nashville, Oct. 13, 1856, and continue six days, have been induced to offer good premiums for the best races of trotting or carriage horses, Devon cattle, etc., with the hope that some of your northern breeders may be induced to send Morgan horses and mares, Messengers and other breeds, with Devon cattle, Essex, Suffolk, Berkshire, and all other improved breeds, into our State, with the view of selling them at fair prices. Our State Bureau and County Societies would take much interest in finding purchasers for all the stock which might be brought among us.

I must not forget to say also, that many of our farmers are very anxious to obtain improved breeds of sheep—coarse and fine wool. Indeed, good Durhams would now sell at good prices, and I should be much surprised if any of the improved breeds of animals were to fail bringing remunerative prices.

Any service, my dear sir, which you may render, in inducing your readers to send stock or machinery to our State Fair, will be thankfully acknowledged. T. Fanning, *Cor. Sec'y.*

A Day or Two in Fayette County, Ky.

The Herds of the Messrs. Warfields.

Benj. Warfield, Esq., Sr., is known as one of the earliest and most careful short-horn breeders in Kentucky, and with him have been associated of late years, his sons, Messrs. William and Benj. Warfield, Jr. Not perhaps as largely engaged in this pursuit as some others, they have always aimed to secure and maintain a high degree of excellence, and probably no herds in the State are of better repute, no breeders considered more entirely reliable. Their thorough-bred stock at present aggregates, we believe, 75 or 80 head. A constant demand keeps full pace with their ability of supply, and the experience of father and sons for the past forty years would be a complete history of the variations of the popular regard for improved cattle, at one time on the ebb, then again increasing, and now creating a better market and prices uniformly higher than ever known before. The past ten years have witnessed an advance, indeed, impeded by less fluctuation, and apparently destined to be far more permanent, than any similar stage in the previous history of short-horns. Railroads,—which save so much in driving, and bring city and country into the immediate vicinage of each other,—admit of fattening the carcass at a distance, with far less regard to strength of limb, and capacity for endurance, than heretofore; and it consequently results, not more in the case of horned cattle than with sheep and pigs, that the breeds which consolidate the most flesh upon one frame, pay far the best profits. There is a vast field for the improvement of stock in the Western States, and no prospect at present that the market will be overstocked, either of beef at the cities or breeding animals in the fields.

The bull 'Young Chilton,' belonging to Messrs. B. and W. Warfield and Dr. Breckinridge, was imported by the Northern Ky. Co. in 1853, and, though bought for a lower price than one or two others, was selected by them in preference to the rest, at the cost we believe of $3,005. 'Lady Feary 2d,' is a cow of the same importation, and was purchased for $1,100. Among the offspring of 'Renick,' a fine bull, brought from Ohio by the Messrs. W. in 1846, and which has sired many superior animals, is especially worthy of note, 'Princess,' a beautiful cow now eight years old, the mother of 'Peeress' by 'Young Paragon,' and 'Peerless' by 'Young Chilton,' the latter now owned by Mr. Clay, and both every way worthy of their parents. 'Cherry 2d,' illustrated in the second volume of the Am. Herd Book, is also an excellent cow, and her calves 'Sally Smith' and 'Cherry 5th,' will vie with her; the portrait of the former of which is to appear in the next volume. 'Cherry,' 14 years old, bears her age well and is yet a valuable cow. 'Lizzie Higgins,' 12 years old, is mother of several prize animals. Much of Mr. Warfield's stock runs back to the importation of 1817, and some of it to that of 1834.

With Mr. W. we called on Col. Wm. R. Estill, at whose farm we saw 'Yorkshire Maynard,' one of the bulls imported in 1853, then a yearling and in very poor condition, and sold for $1,000. Col. E. has other short-horns, and both he and Mr. Warfield have some good Suffolk swine.

Messrs. John and Albert Allen

Have pleasant places seven or eight miles out of Lexington, where we also found choice specimens of short-horn blood. Their bull 'Senator 2d' we had seen at Pleasant Hill, and two cows imported at the same time, 'Roan Duchess' and 'Duchess of Sutherland,' at Mr. Alexander's. 'Ida,' white, out of the former by 'Young Chilton,' and a light roan, now five months old, out of the latter by 'Senator 2d,' were two very promising heifers. These and several good cows, Zephyr, Young Roselle, and others, we saw at Retreat, the residence of Mr. John Allen.

Mr. Albert Allen has 360 acres, beautifully situated, bordering on South Elkhorn, and from this circumstance called Elkview. Here, as well as at his brother's, we had a very pleasant call. Among the notable animals were 'Goodness,' imported in 1853, together with her calf 'Orontes.' She was sold for $2,050, and the latter for $4,500. She has had but one calf in this country, 'Goodness 2d,' which was purchased by Mark R. Cockrill, Esq., of Tennessee, for $800, when about seven months old. Her own portrait will illustrate the third vol. of the Am. Herd Book. 'Jewel,' a fine bull calf, nine months old, out of Jewess by Senator, will also appear in the next volume. 'Valence,' 'Princess,' and 'Miss Fairfax,' are good cows.

All the stock of the Messrs. Allen is creditable to their judgment as breeders and enterprise in purchasing. Like others, they find the demand ample not only to prevent accumulation on their hands, but to induce them to sell somewhat closer than might be the case but for its urgency. We owe our acknowledgments for their courtesies, and regretted that previous engagements prevented our spending more time in their vicinity.

On our way to Lexington in the afternoon, we called upon Isaac C. Van Meter, Esq., who has some good cattle, but devotes a large farm mostly to grazing purposes. In speaking of the advantages possessed by the fine blue grass pastures of this portion of Kentucky over other localities for beef-raising, he gave it as his opinion that five pounds of flesh could be put on an animal more quickly and cheaply by grazing, than two pounds by grain—a difference that will allow some modification and still leave a large balance in favor of grass raising farms. Mr. Van Meter has a number of young animals sired by Challenger, Yorkshire, Maynard and Fortunatus. We should not omit to mention 'Conqueror,' now nearly two years old, sired by 2nd Duke of Athol and purchased of R. A. Alexander for $430—nor one or two promising young horses.

The Stock at Ashland.

Jas. B. Clay, Esq., the present owner of the late residence of his father, Henry Clay, has a small and choice breeding establishment of both horses and cattle. It is his purpose, he told us, to keep ten females and one male of each, and these of course, of the very best quality. Here we saw Mambrino Chief, a trotting stallion of great size, and when in full condition, a handsome one. He stands nearly 17 hands in hight, and has trotted his mile in 2:33. He is highly esteemed as a getter, and several of his offspring are animals of great promise. In a yearling filly, called 'Ann Mischief,' of his siring, out of a high bred mare, we could see little if any room for improvement; her merits will perhaps be better appreciated when we add that Mr. C. refused $300 for her when a sucking colt. Another filly and one or two colts are beautiful and promising animals; and among a number of fine mares, we noticed particularly one of Eclipse and a second of Yorkshire blood.

We had more curiosity to see 'Royal Duke' than any other individual animal at Mr. Clay's. He was bred by Mr. Thorne of Dutchess county, as our readers will remember, from Frederica, by Grand Duke, and is now 20 months old. Perhaps we can pay him no higher compliment than to say he will apparently be fully equal to his sire. The price at which he was purchased, though a large one, was probably better laid out than if it had been spent in a direct importation. Among the cows were 'Fancy 2d,' 'Bostona' and 'Lady Hopkins.' 'Lady Grey' was the one purchased by Mr. Clay at Mr. Curd's sale; she and her little heifer 'Red Bud,' bought at the same time by Mr. Jacobie of Illinois, are remarkably good, and were purchased respectively for $500 and $460—very high prices considering that the former was eleven years old, and the latter, if we remember right, not much more than half as many months. At the same sale, higher figures were realized in three cases only, and not even in those if the proportion of age be taken into consideration. Another fine heifer, 'Belle,' was purchased of Mr. Curd for $400. 'Ceres,' a cow now 13 years old, is the last survivor of the stock of Henry Clay. A yearling bull calf of more than ordinary merit, was sired by 'Challenger.'

Mr. Clay was trying as an experiment, a cross between Short-horn blood and the Scotch Kyloe stock. We saw several grades of this breed, and shall be pleased to learn the progress of the trial. The Kyloe is by some thought to have been one of the races from which the present Short-horn breed derives its origin; it is of a black or quite dark color, not large, but symmetrical, and said to constitute the chief wealth of the portion of Scotland of which it is a native. Martin states that in Argyleshire "many of them are models of beauty." A number of Maltese goats, we were informed, had proved very serviceable milkers.

Of the 325 acres in the present Ashland farm, but 40 are under cultivation. Mr. Clay cuts 50 or 60 tons of hay; the rest of the grass land is in parks and pastures. There is much that can be said of a place, about which so many interesting associations are clustered, which scarcely seems appropriate in the midst of stock criticisms; we therefore defer one or two further remarks for another place.

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How to Dry Hay—New Way of Draining.

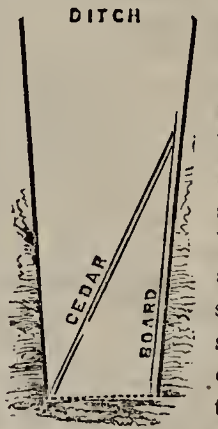
An article with the above heading, appears in the Country Gentleman of July 24. As I differ much with the views of the writer, and as the subject is important as affecting a great interest, I give my reasons for dissent. His process of curing hay is by exposure to sun and air—mine, on the contrary, to protect it from both sun and rain. Hay, by long exposure to the sun, is bleached and ruined. With the green color departs the nutritive juices, and it becomes in time little better than straw. My practice, and that of some of our best farmers, is, to rake and put in cock without spreading as the hay is cut, or rather to cock it on the same day that it is mowed. Let it remain in cock until the third day, then opened and spread out, and it will directly be found cured and fit to be carted and moved away, retaining its green color, and consequently more marketable. The reason of its drying so quick when it is opened, arises from the fact that it generates heat, throws it out, and will not again heat in the mow. The straw of oats, wheat or other grain, would be vastly more nutritious if cut in a green state.

It is the bleaching process by the sun, from standing too long in the field, that injures its value as fodder, and I would add also impairs its value as grain. I do not mean by this to advocate the cutting of it before the kernels are perfected, but while yet soft, and easily crushed, after having passed from the milk.

The course I propose in respect to the curing of hay, saves labor, and insures safety from rain and dew. In rainy catching weather the cocks may be doubled, and opened to the air if on examination they are disposed to overheat and blacken.

I have practiced this mode of curing hay for 15 or 20 years, and have always succeeded in securing my hay in good order, and without any, or at most trifling loss. I use a revolving rake, to be followed by a horse rake with teeth closer set, to rake over the fields after the hay is carted off; no hand rakes are required. This system relieves me from all anxiety about the weather, and I can go steadily on with the work unless when it actually is raining, in which case I never cut or rake hay, as it will not do to put hay in cock with more wet than the natural juices.

I see another article on the subject of drainage, and would say that I have entered upon that work on a plan of my own, and feel quite confident that in some locations where stones are scarce and timber plenty, it will be found much the cheapest and best. I dig my drains three feet deep and 18 inches wide. I then cause cedar timber to be cut 2 feet in length, and to be rived 2 inches in thickness, making staves of the width of the log. I also take cull boards and cut them 20 inches long and place them in my ditch, as shown by the engraving. The boards should be placed upright against one side of the ditch, and settled into the ground an inch or so, and are merely to support the cedars leaning against them, and to keep them from pressing on to the ground by the incumbent weight of earth after the ditch is filled up. I place the boards and cedars fitting tightly together, and over-topping where the cedar staves run thin, and as there is a planing mill near at hand, use shavings on top of the cedars to prevent the dirt from getting into the drain. This gives a large triangular space for water, and I think will last long, and is cheaper than I expected, inasmuch as the cedar thus split up goes farther than I expected.
N. Moore. *Champlain, N. Y.*



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Simple Method of Renovating Worn-out Orchards.

In the smaller members of the vegetable kingdom that we have to do with, to supply our wants, experience has proved to the most careless cultivators, the necessity of supplying the soil with fertilizers in some shape or other, to make good that abstracted in the produce. Land will differ in the length of time it is capable of withstanding continuous cropping without adding anything to it in return, but it is not the less certain that there is a limit to the capacity of the *fattest* land. In the case of certain favorable soils, it may also occur that orchards may seem to bear abundantly far into "ripe old age," without any care in cultivating and manuring; yet in this there is unquestionably a limit too. But in the latter stages of the trees' existence, it is oftener shown in the ineffectual attempts they make to ripen to perfection the masses of fruit that the already partially exhausted trees are sure to produce.

From the decreasing vigor of the trees, coupled with the exhausted condition of the soil, every year only adds to the failure, until utter exhaustion and decay finishes its work, and the axe is laid at its roots.

Various remedies have been proposed, but we do not recollect ever having seen the one we now propose to offer, and which we have seen tried with the best results.

Some twenty-five years ago my father came into possession of one of those cottages so often met with in England, with a good-sized garden attached. In this as is often the case, there were many old apple trees, that, doubtless, partially owing to the nature of the soil,—sandy, resting on sand and soft sandstone,—were fast wearing out; even the younger trees seemed to lack some stimulant, from the natural poorness of the soil and hard cropping for many years underneath.

It occurred to him that the contents of the back-house might be turned to good account in renovating these trees. It was done after the following manner. The soil was dug up around each tree, and a portion of it placed in a circle of from six to ten feet from the ball of the tree, to form a sort of basin. A moonlight night was selected, and the night-soil emptied around these trees in considerable quantities with pails, the contents being much diluted with water that always stood in the cesspools. The bulk of it of course soon soaked into the soil, and before morning the whole was well covered with the soil thrown out to form the basin, and but little of the effects of the nauseating dose they had received, could be detected the next morning.

It may be objected to by some, that such highly nitrogenized manure, applied directly to the roots in such quantities, must prove injurious, but the sequel told a different tale, very likely owing to its not coming directly in contact with the small feeding roots which were at a greater distance, especially in the old trees.

Every rain had a tendency to dilute and extend the circumference of its effects, and thus bring it in a fine state immediately about those roots likely to benefit by it, besides encouraging a large quantity of small fibres to spring out from the large old roots.

Be this as it may, the trees were immediately benefited, giving a better growth and fine fruit for many years, and some even to the present time. The dose was repeated at intervals of a few years. If done properly, it need be no more objectionable on the score of its odor, than if carried off in other ways, often without enriching the land one atom. Edgar Sanders.

Milk Sickness in North Carolina.

Messrs. Tucker & Son—I would here make some enquiries in regard to a subject on which some of our citizens, as well as those in adjoining counties, feel much interest, viz., the milk sickness Can any of your readers favor us with the cause? It is confined here entirely to rich coves with a northern exposure, and does not affect cattle if kept up till the dew is gone. Its limits are so well defined that it can be pointed out with accuracy, and is often fenced up so as to prevent cattle from running on it; and further, its effects are not appreciable till the commencement of autumn frosts, when the calves and hogs fed on the milk begin to drop off one after another; and human beings, using the milk, butter or beef, are attacked with the disease, which resembles in some respects typhoid fever, with extreme constipation and weakness of the stomach, which refuses to retain anything that is swallowed, and terminates in death in a few days without relief is obtained.

The flesh of cattle is so poisonous when they are affected with it, that I have known hogs and dogs killed by eating it before they were able to leave the place. Another peculiarity of this disease is, that the butter is poisonous, whilst the buttermilk is harmless, and is used with impunity. The poisonous quality of the beef appears to be concentrated into particular places, as sometimes where a dozen in a family use the beef, only one or two are affected. We have one means of ascertaining whether a beef is affected or not before killing, where suspicion is excited in season, and that is by running the creature moderately and heating it, by which means, if affected, the muscles quiver involuntarily, and the heart often trembles violently, which, when observed, causes all conscientious persons to refrain from slaughtering. We have some few persons who say that they can discover an affected creature as soon as they come nigh it by the oder it exhales, but of this I have no experience.

A person by the name of J. H. Jones, of this county, declared to me some months since, that he took the milk sickness last autumn, by eating a small amount of a white efflorescence which he found on the rocks in his field about six miles northeast of the Tennessee copper-mines; but this might be imagination. However, his cattle were attacked a few days afterwards, and he lost quite a number, besides being severely afflicted himself.

The only remedy that is of much use, appears to be peach brandy sweetened with honey, so as to stimulate the system, but the effects remain in the system after a person is once attacked, so that any exertion that is sufficient to overheat the blood, is sure to bring on a recurrence of the disease.

I have here given nearly all that is known about the effects of this disease, its localities and remedies in this section, hoping that they may draw out what others know thereof, so as to ascertain if possible what is the cause, whether it is a mineral or vegetable, and if possible, to determine what it is.

It would be of importance, if we had the means at hand, to make a full series of analyses of the milk, butter, buttermilk, beef, &c., both of the healthy and affected animals, as that might throw some light on the subject.

There is one variety of timber growing in all the affected localities and nowhere else in this section, and that is the Buckeye, but its effects, where I have had an opportunity to notice them, heretofore, are only on the creature eating it. We have also another poisonous shrub, commonly called the "bubby," the pods of which cause the muscles of the neck to contract during its action; and the creature to fall over backwards and die without any previous warning; but in this case the flesh is not affected, as shown by its effects on hogs, dogs, &c. This "bubby" is one of our sweetest and most ornamental wild shrubs, the bloom resembling in smell, a rich, ripe apple, and the plants being profusely covered with bloom in its season.

Hoping that these random notes may interest Dr. Cuming and others who may be willing to benefit mankind by their information, so that by joint effort the cause of this troublesome sickness may be ascertained, and by that means we be enabled to guard against its effects, I subscribe myself yours, &c. Wm. Beal. *Murphy, Cherokee Co., N. C.*

To Destroy Field Mice.

Messrs. Editors—The great destruction of trees in orchards and nurseries during the past winter, has led to numerous inquiries as to some method of preventing their depredations in future. Permit me to offer a suggestion, which I think may be serviceable to those who have property of that kind liable to be destroyed by an enemy so difficult to be met and conquered by ordinary means, and neither expensive nor difficult to adopt.

Having a field of corn planted on greensward this season, which suffered much from mice, I adopted the plan of poisoning them, by a mixture of Indian meal and arsenic, placing it on and under flat stones about the field, to prevent the rains from washing it away, and other animals from getting at it. It answered a very good purpose, and I think that nurseries and orchards might be protected by placing the mixture in small wooden boxes with holes bored for the ingress and egress of the mice, and inclosing the boxes secured from the rain, in the fall, in small stone heaps scattered about the orchard or nursery. I have had no experience in that line, but the above method, judiciously carried out, seems to me likely to answer the desired purpose, as the stone heaps will be the first places resorted to by the little depredators. C.

Transplanting Forest Trees.

Messrs Editors.—Will you inform me in the Country Gentleman, about pruning transplanted trees? Suppose I transplant from the woods young trees, which generally grow long and branchless for a number of feet up, should they be cut over where the branches begin, and then shorten in the branches? Or should they be cut over, say three or four feet up, and there or underneath be made to form branches from the bare stem? Which will make the handsomest tree in a given time?

In transplanting wild plums (which I intend to do largely the next fall), which method would you advise?

In planting raspberries, should they be cut close down, or should last year's growth be allowed to remain?

I planted a great number in spring, but few have sent up new growths from the roots—probably from dryness of the season.

With currant bushes, also planted in spring, I did not cut *much* in, and think I erred, as the young wood is by no means as vigorous as it should be. Yours very truly. Minnesota. *St. Paul, July* 23, 1856.

In transplanting forest trees, we have always endeavored to procure those growing in open ground, on the margin of woods, or in the most exposed situations, and consequently have had but limited experience with those growing in dense shade. A tree in the depth of the forest is more easily killed by the sun's rays, not having been inured to them; and is more liable to injury by the cold of winter, having always been protected from severe exposure.

Trees from open grounds are not usually difficult to transplant, if care is taken in the careful removal of the roots. When the roots are much mutilated, the tops must be lopped accordingly, provided the tree is a sort that easily sends out new shoots. The sugar maple, for instance, will bear much lopping, as it quickly replaces its branches; and for this reason trees often succeed which are carelessly dug, and trimmed off to nothing but bare poles. They would however make a quicker and better growth if greater care were taken in removal and a portion of the branches be allowed to remain. We should in all cases leave a part of the branches, and shorten these back in proportion to the amount of roots secured in removal.

The elm, hickory, tulip tree, and others, do not quickly reproduce shoots, and therefore great care should be taken to dig up all the roots practicable, and to remove less of the tops.

The wild plum may be cut back freely, as it soon sends up vigorous sprouts, and is generally a tree easy to transplant.

Raspberries should be cut back in transplanting; but unless very dry and in bad condition, we would not cut them down to the ground.

Currants and gooseberries, when set out, should have last year's shoots freely cut back all over the bushes, say nine-tenths of the growth, leaving only the main stems and branches, with buds for new shoots. Last spring, we procured a few hundred gooseberry bushes, which came several thousand miles, and were two months on the way. A few days after their arrival, they were examined, and found to be rapidly drying up and withering. They were immediately pruned by cutting off all the one-year shoots to within an inch of the older wood; they immediately revived, commenced new growth, and have now formed new and vigorous heads, and many of them are bearing crops of large and excellent fruit.

We should have stated, that in setting out forest trees which have stood several years, care should be taken to place the same side again to the sun's rays; as there is otherwise danger of the bark, which has been long inured to shade, becoming scalded and killed if placed in a full southern exposure. With small trees, of only three or four years growth, no such injury is produced.

Soil for Fruit Trees.

Messrs. Editors—What is the best soil for fruit trees? Can I make them do well on a middling dry, sandy knoll, where potatoes and corn grow well except in a very dry season? Will grapevines grow there, if properly cared for? Jas. Pratt. *Washington Co., N. Y.*

As a general rule, a soil that will raise good corn and potatoes, will do well for fruit trees. The climate may, however, be unfavorable for particular kinds, independently of the soil. An apple orchard on the soil described, may need occasional applications of manure, and lime or ashes. Peaches will succeed if the climate is not too severe. Some varieties of pears, as for example the Skinless, Beurre d'Amalis, Osband's Summer, Bartlett, Madeleine, &c, will usually do better than other sorts on light soils, and such plums as the Lombard, Imperial Gage, Washington, Orleans, Huling, &c.

Grape vines want a deep, loose, dry, and highly manured soil—undoubtedly the one described might be well prepared for them.

Another Recipe for Currant Wine.

Editors Co. Gent.—With all deference to your correspondent, who has sent you some recipes for currant wine, I think I can give you a better one.

Take of currants, red, white, or black, separate or mixed in any proportion,

	4 pounds.
Water	1 gallon.
Sugar	3 pounds.

Place the currants, stems and all, in a suitable vessel, as a wash-tub or barrel or crock, and as perfectly as possible mash them up with your hands or some implement, as a wooden pestle. Now add the water, and put the vessel in some moderately cool place. Fermentation will immediately commence, and the skins and stems of the currants will be forced to the top of the vessel, forming a sort of crust. This must be broken down with a stick, and the whole mass stirred up several times a day, and if any currants, not broken, are discovered, they should be broken with the hand.

This process, which eliminates the coloring matter from the skin, and makes the wine *red*, also saves the trouble of grinding the currants in a mill, and likewise has the advantage of precedent in its favor, as this is the way Port wine is made from grapes. Moreover any grinding of the fruit which would disturb the seeds very much, would communicate an unpleasant flavor to the wine. It must be continued three days, by which time the fermentation will have ceased to be very lively.

Now drain out the liquor through a sieve, and squeeze the pulp in a cloth. Put the liquor in a barrel; this time a good sound cask with two heads; and add the sugar, which should be stirred till it is dissolved. Fermentation will now set in again, and if possible the barrel should be filled, that the yeast which is formed in the liquor may work out. Flies will be found very troublesome, and if the barrel is not full so that matter is constantly coming from the bung, I should recommend that coarse millinet be nailed over the bung, which must in any case be left open.

When the fermentation is over, bung up tight, and leave it all winter. In the spring rack off before the second fermentation sets in and riles all up again. After this second fermentation, the wine may be bottled.

It may be proper to add that if the wine should not work itself perfectly clear, it may be fined with the white of eggs beaten to a froth and stirred into the wine, but not stirred in until it is first racked off as clear as possible from the lees.

I have wine on hand made two years ago, which if it is not as good as Burgundy, I don't know it. J. G. W. *Utica, Aug.* 6, 1856.

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Messrs. Editors—I send you some more recipes, which I believe it will benefit your readers to publish.

Simple Cure for the Nose-bleed.

Carry a root of Crane's Bill, (I do not know the Latin name,) two or three inches long, in your pocket, or in your bosom, and your nose will not bleed after a day or two. [We must add to this what we were recently assured was a sure cure for the piles—it was simply to carry a horse chestnut in the vest pocket. How the root or the nut is to operate, we do not clearly understand, but we see no reason why the one should not be as effectual as the other.--Eds.]

Cure for the Gravel.

Eat plenty of Radishes, and the gravel will dissolve and relieve the pain.

To put out Fire in a Burning Chimney.

Put a gill or more of salt on to the fire in the stove ; then close the stove and draughts as tight as possible. The air will condense and quench the flame.

To Cure a Felon.

Scrape Garget root, and apply it after warming a little (not to cook it). Change it often, and the cure will soon be perfected, in most cases.

For a Jam or Bruise.

Mix beef's gall and whiskey, equal parts, and apply it freely, and it will not only kill the pain, but cause it to heal speedily. P. L. E. *Richburgh, N. Y.*

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The Michigan Subsoil Plow.

Messrs. Editors—In the July No. of the Cultivator, you ask those who have used the Michigan Subsoil or Double Plow, to send you the result of their experience.

I purchased one last spring, and plowed about three and a half acres of bottom land on Otter creek. It was easily worked by one yoke of cattle and one span of horses, to the depth of ten inches, completely covering up the turf, and leaving it more like old ground than greensward. After a good harrowing, I manured in the hill, and planted corn. The corn had been planted but a few days before we had very heavy rains which lasted for some days, causing the creek to rise and overflow a portion of it. Some of it was under water two or three days—indeed it was a very wet time. My neighbors began to complain of it being so wet that their corn did not come good on wet pieces. Judging from the manner in which theirs come, I had reason to expect that mine would be a perfect failure, but I never had it come better ; every kernel come.

And now for the last three weeks it has been very dry, having but little or no rain at all, and the corn looks as fresh as it can, the drouth not hurting it a particle.

I bought the plow on purpose to give it a fair trial, and I am convinced that *it is the plow* to plow any depth from six inches to twelve. It makes a deep soil, letting the water soak down and drain off in wet weather, and is also a good preventive against the drouth, besides thoroughly pulverizing the soil. As the result of my experience so far, I would cheerfully recommend it to every farmer for general use. Benj. F. French. *No. Clarendon, Vt.*

State Shows, 1856

Alabama,	Montgomery,	Nov. 11—14.
Am. Pom. Society,	Rochester,	Sept. 24, 25.
American Institute,	New-York,	Oct. 14—16.
California,	San Jose,	Oct. 7—10.
Canada East	Three Rivers,	Sept. 16—18.
Canada West,	Kingston,	Sept. 23—26.
Connecticut,	New-Haven,	Oct. 7—10.
Georgia,	Atlanta,	Oct. 20—23.
Illinois.	Alton,	Sep. 30 Oct. 3.
Indiana,	Indianapolis,	Sept. 20—25.
Iowa,	Muscatine,	Oct. 8—10.
Kentucky	Paris, Bourbon Co.,	Sept. 30 Oct 4.
Maine,	Waterville,	Oct. 28—31.
Maryland,	Baltimore,	Oct. 21—24.
Michigan,	Detroit,	Sept 30 Oct. 3.
New-Hampshire,	Concord,	Oct. 8—10.
New-Jersey	Newark,	Sept. 10—12.
New York,	Watertown,	Sept. 30 Oct. 3.
North Carolina,	Raleigh,	Oct. 14—17.
Ohio	Cleveland,	Sept. 23—26.
Pennsylvania,	Pittsburgh,	Sept. 30 Oct. 3.
South Carolina,	Columbia,	Nov. 11—14.
Tennessee,	Nashville,	Oct. 13—19.
U. S. Ag. Society,	Philadelphia,	Oct. 7—10.
Vermont.	Burlington	Sept. 9—12.
Virginia,	Richmond,	Oct. 28 Nov. 1.
Western Virginia,	Wheeling Island,	Sept. 17—19.
Wisconsin,	Milwaukie,	Oct. 8—10.

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New-York County Shows, 1856.

Albany,	Albany,	Sept. 23—25.
Alleghany,	Whitney's Valley,	Oct. 14, 15.
Cattaraugus,	Little Valley,	Sept. 17—19.
Cayuga,	Auburn	Sept. 17—19.
Columbia,	Chatham,	Sept. 24—26.
Cortland,	Homer,	Sept. 23—25.
Delaware,	Walton,	Sept. 24, 25.
Dutchess,	Washington Hollow	Sept.
Essex,	Elizabethtown,	Sept. 18, 19.
Franklin,	Malone,	Sept. 24—26.
Herkimer,	Ilion	Sept.
Jefferson,	Watertown,	Sept. 17, 18.
Madison,	Morrisville,	Sept. 8—10.
Monroe,	Rochester,	Sept. 24—26.
Oneida,	Rome,	Sept. 23—25.
Onondaga,	Syracuse,	Sept. 10—12.
Ontario,	Canandaigua,	Sept. 24—26.
Orleans,	Albion,	Sept. 25, 26.
Oswego,	Mexico,	Sept. 17, 18.
Putnam,	Lake Mahopac,	Sept. 16, 17.
Queens,	Hempstead,	Sept 25.
Rensselaer,	Lansingburgh,	Sept. 16—18.
Rockland,	New City,	Oct. 8, 9.
Schuyler,	Watkins,	Oct. 8, 9.
Seneca,	Waterloo,	Oct. 8—10.
Steuben,	Bath,	Oct. 8, 9.
St. Lawrence,	Canton,	Sept. 18. 19.
Tioga,	Owego,	Sept. 24, 25.
Washington,	Union Village,	Sept. 17, 18.
Wayne,	Lyons,	Sept. 23—25.

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New-Jersey State Fair.—The Executive Committee of the State Ag. Society, says the Newark Daily Advertiser, are completing and perfecting their arrangements for the fair, to be held in this city in September next, with energy and intelligent foresight. Very commodious grounds on the Bloomfield road have been secured, affording a fine view of the city and country, and they will be supplied with ample accommodations for exhibitors. A grove south of the fair grounds, belonging to Mr. John Garside, has also been secured for the use of the Society, and Messrs. Hewes & Phillips will furnish a stationary engine, with the shafting, to drive the machinery. Stock and other articles of exhibition will be carried to and from the fair, over most of the railroads, *free.* Special arrangements are also made for a prize plowing match. Over $4,000 will be offered in premiums, affording an excellent opportunity for competition between our agriculturists and manufacturers, and those of other parts of the State. The Address will be delivered by Hon. John P. Hale.

Inquiries and Answers.

TURKISH FLINT WHEAT.—I obtained a paper last season of the Turkish Flint Wheat, from Mount Olympus, and saved from it in the garden about two quarts of clean seed, which I think compares well with the original. Do you know the character that this wheat bears in other places? It has a very long and large beard, but the straw is firm—ripens about the time of the Mediterranean. If I thought it was an acquisition, I had the offer of about a peck from a neighbor, who seemed prejudiced against it on account of the color of the chaff or head, which is somewhat of a violet blue. "What is the chaff to the wheat?" You will oblige me by giving your views in the Co. Gent. C. *Salem, N. J.* [This wheat was introduced by the Patent Office, in 1853 or '54, but we have seen no reports on its cultivation. If any of our readers can furnish information in relation to its value, we shall be glad to hear from them.]

HAY PRESS.—*A. G. H.* WM. DEERING & Co., (late Deering & Dickson,) of this city, manufacture a hay press which we can safely recommend. It has been extensively used in this vicinity, and we believe to entire satisfaction.

ROSES.—"I wish you to inform me where I can find the twelve Ever-Blooming Roses, mentioned by E. S., and if you will give his residence, it will much oblige, Yours, W. H." [It would be well for some of our enterprising nurserymen to keep the readers of the Co. GENT. advertised as to their whereabouts and their stock for sale. Our correspondent, EDGAR SANDERS, can be addressed, care of the editors of this paper.]

BOOKS.—*J. A. P.*, Johnson Co., Ind.—Downing's Fruit and Fruit Trees of America, we believe, is not now to be had. Mr. CHARLES DOWNING, we understand, is engaged on a new edition. Barry's Fruit Garden, we will send you post-paid for $1.25; Thomas' Am. Fruit Culturist for $1; Mrs. Loudon's Ladies' Companion to the Flower Garden, for $1.50.

☞ Have you at Albany a *hardy* raspberry that you can recommend. The Antwerp here requires covering in the winter; I would like a more hardy variety, and I understand they can be had at Albany. In raising raspberries from the seed, when would you sow the seed? H. C. *Milwaukee, Wisc.*

The *Franconia* is generally considered the hardiest of the large varieties, while *Fastolff*, and *Knevit's Giant* are usually set down as hardy. But not one in the list is sufficiently hardy to stand unscathed the winters of Albany. It is true they frequently *live*, without protection, but the fruit is very scanty and poor, when compared to those laid down in the soil. It depends in a great measure on the nature of the soil as to hardiness; for instance in very poor dry soil where the young canes do not rise over two or three feet high, they will like their prototypes of the woods, escape with the loss of their points only; whereas if the soil is as it should be, to have heavy crops, tolerably rich, the canes grow from six to ten feet high, and winter finds them often green and growing, and hence less able to stand severe frosts.

Those who raise for market in Albany, consider the extra labor of covering fully compensated for by increased quantity of fruit.

We copy the following on sowing the seed from the Book of the Garden:—"Seed should be sown soon after the fruit is fully ripened, washing away the pulpy matter, drying the seeds, and sowing them in pans or pots, in light, rich soil, placed in a cool frame or pit. In spring they will vegetate in the ordinary temperature of the climate, or they may be placed in a mild heat to further their growth. When about four inches high, transplant them into a nursery-bed about eight inches apart: the season following they may be planted out in lines in rich moist soil, and many of them will produce fruit the same season."

BUYING A SMALL FARM.—*J. M. W., Dracut, Mass.* We would not advise you to move west, but rather to purchase ten to fifteen acres of land as near to your present residence as you can—hire a good man to work it for you, while you continue at your present employment, earning as you do more than twice what the services of a good laborer would cost. This land, if brought into good condition, and properly planted to fruits and vegetables, would produce you more profit than three times the amount at the west.

WHEAT AND CHESS.—What should you say if my neighbor was to send you a stalk of fall wheat with a stalk of chess growing out of it? He says he has such an one. J. D. [We should say that it was not an uncommon sight, and proceed to show him that the chess did not grow from the wheat plant. Of this, however, he can easily convince himself if he will carefully examine his plant]

PIPES FOR WATER.—Desirous of obtaining some kind of cheap water pipe, I write to you or some of your numerous readers for information. I wish to have a kind of pipe that will last in wet and dry ground—perhaps the earthern pipe. I am not particular as regards the great strength, if they will carry but five to ten feet head, or even less will be sufficient. C. S. WITTMER. *Manor, Law. Co, Pa.*

PORTABLE CIDER MILLS.—*G. B., Burnt Hills.* Your can get these mills at the Agricultural Warehouses in this city—price $40 to $45.

MESSRS. EDS.—As the season for saving fodder will soon be upon us, I wish to satisfy myself as to the injury done the corn by stripping the blade, compared with that sustained by cutting the tops. By which is the land injured, if at all, the most? If you think this subject worthy your consideration, and give a reply through your paper, I doubt not others of your subscribers may be interested in the matter beside your new patron. W. S. G. *Elizabeth City, N. C., July* 22.

A FEW WORDS ABOUT SMUT IN WHEAT.—In harvesting last summer, I discovered an ear or head which was all smut but five or six grains. I determined to try an experiment upon it. I sowed it in the 1st mo. Four of the grains germinated, and I did not have one head or ear of wheat—all smut. Is there any way whereby we can completely eradicate it? If so, we would like to have the information. We have a fine harvest, but a good deal complaint of smut. D. FARLOW. *New Market, Randolph Co., N. C.* [Smut may be in a good degree, if not entirely, prevented, by washing the seed thoroughly (the last washing in brine), and then rolling it well in dry powdered water-slacked fresh lime, some hours before sowing. After being thus treated, it should not be put into bags which have had smutty wheat in them.]

DEEP AND SHALLOW PLOWING.—MESSRS EDITORS: There is a great diversity of opinion among farmers here in regard to deep and shallow plowing for wheat. Some hold that if the ground is plowed as shallow as possible, the wheat will not freeze out. I would be glad to hear, through your paper, the opinions of some of the wheat-growers in other localities in regard to the matter. I want to roll my wheat ground this fall; when shall I roll it, before or after sowing? J. O. MARSH. *Maineville, O.*

EDS. CO. GENT.—When is the best time to transplant the common Balsam Fir, and what should be the after treatment? Would it be advisable to water them often, and do they require high manuring? A tree pedler is now selling them through this section, and intends to do so until the middle of August. Will some one who can speak from experience, inform me through the columns of the Co. GENT., as to the probability of their living. E. L. COY. *West Hebron, Washington Co, N. Y.*

☞ *P. McD.*, Oconto, Wis., wishes to know through the Co. GENT., "a little about the care of Crown Imperials."

Notes for the Month.

☞ We are indebted to Gen. **Jas. T. Worthington** for his Report as President of the Ohio State Board of Agriculture in 1855, to the General Assembly of that State. It is reserved for the Secretary's Report to contain details of the action of the State Board, the County Societies, &c, &c. That of the President is devoted to an examination of the changes going forward in the industrial condition of Ohio, and to his views on the manner in which they should be met by the agricultural community.

These changes are owing to the following facts:—that the increase of population in the cities of Ohio is now three times as fast as that in her rural districts; and that large numbers are constantly leaving agriculture for employment on lines of travel and transport, manufacturing pursuits and small trades. General Worthington advocates the importance of improved farming to meet this great relative diminution in farm products and augmentation in non-agricultural population;—and particularly presses the combination of capital among farmers, to enable them to procure the best stock, and to avail themselves of mechanical assistance and every other mode of cheapening and facilitating labor, so that they may compete advantageously with the farmers of the west. The vast tracts of low-priced and highly productive lands, opened to cultivation at almost no cost at all, on the prairies of the newer states and territories, seem to necessitate some action of this kind on the part of older farmholders, even in Ohio, and quite as much so, we may add, still further to the east.

He then goes on to recommend a Geological and Agricultural survey of the State; strenuously opposes uninclosed pastures and the running at large of animals, as vastly increasing the expenses of fencing and the destruction of property and life on railroads, &c.; and advocates the establishment of an experimental farm. Ohio has become "a prosperous and populous community, during the life-time of many who were born before the ring of the settler's axe was first heard in her unbroken forest;" and to continue her advancement, it is of the last importance that her Agricultural interests should receive the general and thoughtful attention they merit, and that the greater relative advancement in her civic population should be accompanied by a proportionate improvement in the productive power of her Agriculture. The subject of combined capital in farming, which is treated by Gen. W. at some length, is one of no little interest, and to which he informed us he had given much attention. We may take up its consideration at another time, but would be still better pleased if he would permit our readers to learn from his own pen, the conclusions to which he has been led by long experience and thorough acquaintance with the practical details of farming.

Cattle Sales at our State Fair.—We are glad to see that several lots of pure bred cattle are to be offered at public sale on the last day of the New-York State Exhibition at Watertown, and we hope the day is not far distant when these exhibitions will be made as attractive, in a business point of view, to the sellers and buyers of stock, as they now are interesting and instructive to the public at large. The advantages of such an arrangement, are well set forth in the following extract of a letter to the editors of the Co. Gent., from one of the best breeders in the State:

As you will observe, I intend taking the bull to Watertown for the purpose of selling him; thus helping to make a beginning in the scheme long advocated by several of our prominent breeders, of making our State Fair a point where buyer and seller may meet, and where the purchaser may make an easier and better selection among the animals from the various breeds, here presented to him side by side, than he can do when visiting them hundreds of miles apart and at intervals of several days. It requires an exceedingly good judge to compare animals correctly from memory, and the most practiced will often fail in cases which would be self-evident were the individuals together. We have long reaped the advantages derived from seeing the best stock brought into competition at our shows; but these choice specimens, though useful as standards and examples of excellence, are rarely for sale at any price, and the buyer is often disappointed in his efforts to procure any thing by the exorbitant prices asked by breeders or owners for their *best* animals.

But were we to be in the habit of bringing to our shows animals for sale as well as for exhibition, a vast number of buyers would be attracted to them from a distance, certain of finding there a collection of stock from which selection would be easy and the prices reasonable. The criticism of the public would prevent any but really good animals being offered, no *breeder* being willing to expose inferior beasts to the judgment of such a concourse, and the prices obtained for such would not warrant the expense of transporting them.

The approaching sale of Mr. Van Rensselaer's herd of Devon cattle at Watertown, will test in a measure how well grounded these views are; and whether the statement that is sometimes made, that our shows are poor places to sell at, is not owing to the want of inducements for purchasers to attend them. Among the animals present, those for sale are exceptions, and buyers do not care to come merely to *look*.

Mr. Van Rensselaer's Devons are to be sold by auction without reserve. In this case the *best* being for sale as well as *show*, and therefore it is not altogether a case in point; but it will serve as an indication whether purchasers will not come when sure of a supply of stock for sale. I look upon the herd thus offered to the public as *second* to none in this country, and I shall be surprised if the competition to secure them is not great enough to warrant a repetition of the experiment by other breeders. I trust we shall ere long be able to add to the already great attractions of our annual shows, the presence of a large number of excellent animals *for sale*, as well as exhibition.

Steeping Seeds.—We have been requested to put upon record a fact in relation to this subject, which may serve as a caution of some utility to a good many. A farmer soaked his seed corn this spring, as he usually does, some of it 12, and some of it 24, 30, 36, and up to 48 hours. Towards the last days of his planting the land became very dry, and as there was no rain for upwards of two weeks afterwards, there were many parts of the ground so dry that seeds could not possibly germinate. The consequence was, that much, or perhaps all, of the seed corn which had been steeped long enough to cause it to sprout, could not procure in the earth moisture enough to have the process, already commenced, continued. The sprouts or swelled germ finding no moisture, rotted or died. Had as severe a drouth as actually did occur, been anticipated, our informant would probably have preferred to plant unsoaked seed in the dryest portions of his field. He thinks that when there is considerable probability of a "dry spell" after planting, it would be safer to plant seed which had not been steeped at all, than put any seed into dry ground—already dry—which has become soft or commenced to swell or germinate.

Mountain Seedling Gooseberry.—Our friend, P. Stewart, of the Shaker family, at New Lebanon, has sent us samples of a gooseberry which he has cultivated for some years, and which he calls the "Mountain Seedling of New Lebanon." It was discovered growing wild about ten years since, and has improved by cultivation from year to year. The bush is said to be a rapid grower and very productive—the berry is of good size and fair quality, and has never been known to blast or mildew, a quality of great value.

The Crops.—We spent a portion of last week in Central and Western New-York, and made as extensive inquiries as we could in relation to the crops. As to wheat, all agreed that in the counties of Cayuga, Seneca, Ontario and Wayne, it was a full average crop, and of good quality, though a much larger portion of it than usual was the Mediterranean, a variety of less value than some others, but extensively grown from the belief that it is less liable to injury from the wheat midge. The weather has been favorable for the harvest, and the crop has been mostly housed in the best condition. In the counties named, but little damage had been done by the midge, but we were told that very serious injury had been done by it in some parts of the Genesee Valley. An extensive wheat-grower from Livingston county, who, from the growth of straw and the fine appearance of his wheat on the ground, had anticipated an average of twenty-five bushels per acre, found on threshing, at which he had been for some days engaged, that the yield would not exceed ten bushels, and he believed that when the farmers came to thresh their wheat, they would find it much more seriously affected by the midge than they had supposed. The hay crop has been generally good throughout the State, and corn, oats, barley and potatoes, promise well, though now suffering somewhat from want of rain.

Agricultural Bureau at Washington.—We learn from one who has recently visited this department of the Patent Office, that it is gradually gaining in usefulness and importance to the interests of the agricultural public. An appropriation of $30,000 has already been made by the present Congress, and a farther appriation of $70,000 will be asked for before the close of the session, making in all $100,000 for current year.

About $20,000 are to be expended for seeds and cuttings. About forty bushels of English turnip seed has recently arrived at New-York, and is now probably in the process of being distributed. The Bureau received at the same time four hundred bushels of peas, and seven hundred pounds of early York cabbage seed.

One thousand bushels of wheat have been ordered from the Mediterranean. In distributing this wheat, especial reference will be had to experiments in cross-fecundation, by which it is thought new and valuable varieties of wheat may be obtained.

Dr. Parker, U. S. Commissioner to China, has had $1,000 placed at his disposal for the purchase of seeds.

Mr. W. T. Dennis has been commissioned to visit every State in the Union, report upon its grasses, and procure seed for distribution. When seed has been procured, experiments will be instituted with a view of ascertaining what grasses are most permanent, most prolific, and most nutritious for stock, in every district or county in the Union.

Dr. C. T. Jackson is permanently engaged in chemical experiments of considerable value. By one set of experiments, Dr. Jackson has proved that oil, worth about seventy-five cents per gallon, can be extracted from cotton seed, leaving a cake worth two or three cents per pound. Experiments of much promise are projected, among which are those by which the amount of phosphates in the worn-out soils of the east, as compared with the virgin soils of the west, is to be determined.

These are some of the chief operations at present being carried on or projected by the Agricultural Bureau, under the direction of Mr. D. J. Browne. They certainly promise important results to the agricultural fraternity.

The Transactions of the Connecticut State Agricultural Society, for 1855,—also those of the New London Co. Ag. Society—have been sent us by our friend Calvin Allyn, Esq., of Uncasville. The former contains the usual reports of Committees, Judges, &c., a number of interesting communications on a variety of subjects, and reports from the County Societies of Hartford, Fairfield, Windham, Litchfield, Tolland, and New London. The latter includes the address of W. C. Goldthwait, together with the customary doings of the Society during the year.

Thornless Blackberry.—We are under obligations to our correspondent A. A. B., and to Mr. Jonas Newman, of Milton, Ulster county, for a basket of fruit from the Thornless Blackberry, together with samples of the canes, described in the Co. Gent., vol. VII, p. 30. The berries are large, though not extraordinarily so, and very sweet and luscious. The vine is represented as very productive, and as continuing to ripen its fruit for five or six weeks.

High Price.—Lt. Col. Towneley's Short-Horn bull, "Master Butterfly" (13311) to which was awarded (competing with thirty-four animals in the same class,) the first prize at the late Universal Exhibition at Paris, has recently been sold, to go to Australia, for 1200 guineas—a higher price we believe, than any similar animal ever sold for before in Europe, though it was somewhat exceeded at the sale of Short-Horns imported by the Northern Kentucky Association in 1853, when the bull "Diamond," three years old, was sold for $6,001.

Short-Horns.—The high prices at which this breed of cattle has sold for some time past, has led many of our breeders to increase their herds in order to supply the increasing demand. Mr. Chapman of Clockville, Madison Co., has just made an addition to his already extensive herd, by the purchase of the fine herd of cows and heifers belonging to Mr. C. Caulkins, of Wyoming county, some of which are represented as very splendid animals—and Mr. E. Marks of Camillus, Onondaga Co., passed through this city last week with two fine cows—'Cornelia' and 'Fill-pail Lass 2d'—purchased of Mr. Thorne, of Dutchess Co., both in calf by Second Grand Duke.

Short-Horns.—Mr. Thomas Gould of Aurora, Cayuga County, took home with him last week two very nice two-year-old Short-Horn heifers—"Fill-Pail Lass 3d," and "Omen"—which he has recently added to his herd, by purchase from Mr. Thorne of Thornedale. They were bred by Jonathan Thorne, Esq., and both in calf by Mr. Samuel Thorne's recently imported "Second Grand Duke."

Calf Sold.—We learn that S. P. Chapman, of Clockville, has recently sold to Cooper Sayre of Oaks Corners, Ontario Co., N. Y., a bull calf sired by his premium bull Halton (11552), dam Boukie (imported) by Fourth Duke of York (10167), g. d. Cicely by Duke of Northumberland (1940), &c., &c. He ("Fourth Duke,") is a rich, red roan, and is said to be a superb animal all around.

Sale of Shorthorns.—The *Ohio Farmer* learns "that Jas. M. Trimble, of Hillsboro, Ohio, has just been increasing his herd of Shorthorns by the purchase of seven from Dr. Watts, of Chillicothe. Among his purchases are Arabella 3d, Ella, Gertrude, and Maurice, and three yearling heifers—calves of Mary Grey—Arabella and Gandy, and sired by Medallist. Before this purchase, Mr. T. had thirty head of thoroughbreds."

The Mice Plague—Early Tomatoes.—A private letter from Long Island, contains the following paragraph: "I have noticed various communications in the Co. Gent. relative to preventing mice from girdling apple trees. We were formerly very much troubled by them, but for the last eight years have tried removing the grass and rubbish from around the trunks of the trees, and this has proved effectual. Our gardener neglected to remove the grass around the trunk of one of the apple trees last fall, and that one alone was eaten by the mice; all the rest were saved. We also tried a plan recommended by the Co. Gent., of planting tomatoes and cucumbers in champaigne buskets, and placing them in hot-beds until the weather became warm, then placing the plants in the basket in the ground. In this way we obtained tomatoes and cucumbers much earlier than we could by transplanting the plants."

Johnson's New Wind Power.—*Correction.* The post-office address of Mr. Johnson was incorrectly given in the account of his new wind power, which was published in the Co. Gent. for July 17, p. 43, and in The Cultivator for August, p. 260. His address is "M. S. Johnson, Palatine, Cook Co., Ill.," and not *Palestine*, as printed.

Kentucky State Ag. Society.—We have received the premium list and regulations for the first fair of this Society, which is to be held at Paris, commencing Sept. 30, and continuing five days. The prize list, which is systematically arranged, amounts to over $5,000, and embraces several household articles which we have not before noticed in any prize list. In addition to butter, cheese, sugar, bread, &c., there are prizes for cakes, wheat and corn bread, jellies, preserves, pickles, preserved fruit in cans, hams, dried beef, &c., &c. The officers of the Society are:

President.—Brutus J. Clay, Paris.

Vice-Presidents.—Robert W. Scott, Frankfort; William Bell, Owensboro'; Lazarus W. Powell, Henderson.

Directors.—Laban J. Bradford, Augusta; Lucius Desha, Cynthiana; Harrison Thomson, Winchester; J. B. O'Bannon, Williamson's, Jefferson Co.; James R. Hughes, Springfield; Daniel W. Jones, Dansville; John M. Sharp, Bowling-Green; Richard A. Bacon, Paducah; E. O. Hawkins, Russellville.

Treasurer.—William W. Mitchell, Paris.

Cor. Secretary.—Robert W. Scott, Frankfort.

Rec. Secretary.—William C. Lyle, Paris.

Executive Committee.—Brutus J. Clay, Wm. C. Lyle, Wm. W. Mitchell, C. T. Garrard, Samuel H. Clay.

The Bourbon County Society, on whose grounds the State Fair is to be held, have just purchased for its accommodation, about ten acres of additional land—making altogether in the neighborhood of thirty.

Trial of Mowers in Westchester County.—We have received the following account from the President and Secretary:—At a meeting of the farmers of Westchester co., held under the auspices of the Farmers Clubs of the towns of Lewisboro' and Bedford, for the purpose of testing the virtues of the different mowing machines now before the public, Hon. John Jay was called to preside, and Edward Lawrence appointed Secretary. The following persons were then appointed to act as judges at said trial: J. H. Keeler, N. Lyon, A. D. Silkman, Geo. W. Lawrence, and Jonah Holly.

After some discussion and passing some resolutions relative to the manner of trial, the following resolution was passed as a substitute for all previous action:

> *Resolved*, That the judges assume the entire direction of the trial.

The judges then directed that the owner or agent should pass his machine, propelled by his own team, twice around the field. The following machines were entered for trial: Ketchum's, Gale's, Allen & Co.'s, and Manny's. The field selected for trial was on the farm of Aaron Silkman, Esq., beautifully located about three miles east of Whitlockville Station, on the H. R. R. It was a heavy piece of timothy and clover, very badly lodged by a heavy shower, which fell just before the organization of the meeting, and as a consequence was in an exceedingly unfavorable condition for operating any machine successfully.

After this trial, a plot of grass was allotted to each machine, and upon the conclusion of this trial, interesting addresses were delivered by Henry Wood, Esq., of Bedford, President of the Westchester Co. Agricultural Society; Hon. John Jay, also of Bedford, moderator of the meeting, and Dr. R. T. Underhill, of Croton Point—after which the judges rendered the following report:

"We give credit to each machine for cutting grass in this situation so well, but we give the preference decidedly to Gale's and Allen's machines, but are unable to give any preference to either of the machines last named."

After resolutions of thanks to the Clubs, the owners of the machines and farm on which they were tried, and to the officers and speakers at the meeting, the company adjourned.

Another Trial of Mowers.—The Committee at the trial of Mowing Machines by the Oneida Co. Ag. Society, at New-Hartford, June 26th, report that they experienced the usual difficulty in deciding as to the relative excellence of those exhibited:—Ketchum's Patent Mower, by Morgan L. Butler, Agent, New-Hartford; Manny's Patent Mower by Dana & Co., Utica; Allen's Patent Mower by Thos. Foster, Agent, Utica; Gale's Patent Mower by James Merriman, Agent, Oriskany. While the second one above named [Manny's with Wood's improvement] was thought —"taking all its qualities into consideration, as probably the most desirable," and received the first premium, it is said of Ketchum's that its mowing was unexcelled, and that it was inferior only in being apparently of rather heavier draught. It received the second prize. Allen's performed "its work as satisfactorily as either of the others, and the only question is as to its durability, the frame being of wood." Gale's "is very strong, and, as far as they could judge, the least complicated of all." So much difficulty was found in awarding the first and second premiums, that the committee did not undertake to decide as to the third, between the two latter machines. They say "the whole exhibition was a complete success, as none failed to do what had been claimed for it," and that "where all did so well it would seem to be almost presumption to make any decision."

The Provincial Ag. Association has sent out its prize list for the fair to be held at Kingston, C. W., Sept 23-26, 1856. Competition is open to all Canada, and there are special prize lists for Foreign Stock, and Agricultural Implements. Arrangements will be made for agricultural lectures or discussions during the evenings of Wednesday and Thursday of the show week. Baron de Longueuil, President, offers to furnish hay gratuitously to all the stock shown.

Alvin Lawrence., of Mexico, will accept our thanks for the Premium List of the Oswego Co. Ag. Society for 1856. The first Fair under the new organization is to be held in his village, Sept. 17 and 18. The Society has purchased ten acres of finely located land; commodious fixtures are in course of erection, and the list of prizes is increased 100 per cent. over any former year.

The Ellisburgh, Adams and Henderson Ag. Society holds its eighth annual fair at Belleville, Jefferson Co., N. Y., Sept. 10 and 11, 1856. Henry Green, Jr., President; C. Littlefield, Secretary.

☞ We are indebted to our Representative, Hon. Saml. Dickson, for the "Public Documents relative to Central American Affairs and the Enlistment Question"—also for the "Report on the Alleged Assault on Senator Sumner."

The Entire Herd of North Devon Cattle belonging to H. R. Van Rensselaer, of Morris, Otsego county, N. Y., will be sold at public auction, at Watertown, N. Y., on the 3d day of October next—that being the last day of the Show and Fair of the New-York State Agricultural Society, which will be held at the same place. The herd comprises three males and twenty-three females. Among the former is the noted imported bull Megunticook, winner of various prizes. It may be safely asserted that this is one of the best herds of Devons in America.—*Boston Cultivator.*

VERMONT STATE AG. SOCIETY.—The Sixth Annual Fair of the Vermont State Agricultural Society will be held at Burlington, on Tuesday, Wednesday, Thursday, and Friday, the 9th, 10th, 11th, and 12th days of September next. The spot selected for this exhibition commands fine views of Lake Champlain on the west, and the Green Mountains on the east, which render the site peculiarly attractive. The grounds will be prepared with ample accommodations for the exhibition of all animals and articles, and contain suitable pens, stalls, and halls, a gallery overlooking the trotting course, and a well graded track for the trial of horses. Hand-bills containing the announcement, premium list, committees, and regulations, may be obtained upon application to any of the Directors, or of the Recording Secretary at Brattleboro. CHAS. CUMMINGS, Rec. Sec'y.

ILLINOIS CENTRAL R. R. LANDS.—The lands offered for sale by the Illinois Central RailRoad Company were granted by the United States to the State of Illinois by the Act of 20th September, 1850. All the conditions stipulated in that act have been fulfilled, and the title to those lands can no longer be affected by legislation.

By the Act of 10th February, 1851, the State of Illinois incorporated this Company, and directed the Governor to convey to said Company, by a deed in fee simple, all of said lands, &c., which was done.

The said Act further required said Company to execute a deed of trust of all of said lands, &c., to certain persons named therein by the State, to secure the performance of the conditions and stipulations required thereby. The bonds issued under this trust are being paid as fast as the money is received from the sale of lands set apart for that purpose. All bonds received for lands, or purchased with the proceeds of such lands, are officially cancelled by the trustees.

Where payment is made in full, the purchaser at once obtains his title from the trustees appointed by the State. If the sale is on credit, however, the title is not given till final payment is made, but the purchaser receives a contract, stipulating that such title will be given on full payment, and compliance with the conditions therein specified. Each payment for lands sold on credit, can be made in construction bonds or cash; and if in the latter, it is applied to the purchase of such bonds; and the particular tract is at once exempted from liability, and a perfect title given by the trustees—being, in fact, the first conveyance under the authority of the general government.

The sales are made under the direction of the trustees, and are authorised by an Act of the State Legislature. The lands thus sold are exempted from taxation by said law of the State till finally paid for.

The trustees execute deeds for all lands sold; and the conveyance by said trustees, in the terms of the law, is "an absolute title in fee simple," and operates "as a release or an acquittance of the particular tract or tracts so sold, from all liability or incumbrance on account of said deed of trust, and the issue of said bonds so as to vest in the purchasers a complete and indefeasible title."

Thus it is seen, that the Act of Congress making the grant, secures the title in purchasers, whatever may be the action of the State; and the law of the State incorporating this Company, while amply securing the bond-holders, is alike careful to protect purchasers of the lands, and to secure to them perfect and complete titles in any and every contingency.

Notice Extraordinary.

MESSRS. EDITORS—Whereas, it has seemingly been the stock and trade to a large extent of the Proprietors of the Excelsior Agricultural Works of this city to malign and misrepresent persons and facts concerning the proprietors and business of the Albany Agricultural Works, as well as to misrepresent themselves and their own business by numerous ways and times, and also their own past and present relations with the proprietors of the Albany Agricultural Works, which representations are made through public journals, circulars, *lithographic private letters*, correspondence and oral statements, too many to name in this connection, which has not only greatly annoyed them, but, in many instances materially injured them, that this notice is deemed necessary.

Not satisfied with the removal from the Albany Agricultural Works all its facilities, machinery and stock,—(causing for the time being a serious delay and interruption of the business—since which the works have been enlarged, refitted and furnished with new and much superior machinery and with increased facilities, and are more extensively and successfully engaged than at any former period,)—and withholding the half profits, amounting to many thousand dollars, earned during a limited connection with it, in violation of written contracts, said competing firm has commenced and continued to manufacture the Emery's Patent Horse Power without license, and in their defence to a suit brought against them for infringement of the same, have used every exertion to establish and get patented something to offset or mitigate the damages of their infringement, with what success it may be seen by the following opinion:

As it shows clearly, the Commissioner of Patents, after declaring their application to be an interference with the existing claims of Emery's Patent, and all the testimony having been taken on both sides, and filed according to the requirements in such case, did not grant Letters Patent for anything relating to Emery's claim; any such pretence or claim having been either disclaimed or rejected, and the Patent of July 8th, which was granted Kells, being for an arrangement or construction entirely different from Emery's, and different from any Horse Power ever manufactured by said competing firm, and which cannot be applied to the various uses which gives to Emery's its world-wide reputation, and under which reputation the infringing power finds its patronage.

The opinion of CHARLES M. KELLER, Esq., of New-York, who formerly for many years was Chief Examiner of the Patent Office, (which better than all other means, enables him to judge on such matters,) should be regarded as establishing the rights of Emery's Patent. The suit for infringement has been pending since its commencement for trial, and will so soon as practicable or possible, be reached. Thus far no trial having been had, or decisions on the merits of the case been given, certain publications to the contrary notwithstanding, which have been made for and paid by said competing firm, and styled Legal Notices, &c., &c.

HORACE L. EMERY.

NEW-YORK, Aug. 1, 1856.

HORACE L. EMERY, Esq, Albany, N Y.

I have examined the claim in the patent granted Philip H. Kells for Horse Power on the 8th of July, 1856, and find that it does not conflict with your patent.

Your invention is for reversing from right to left and left to right, and for changing the velocities by shifting the geers and pulleys on the ends of the two shafts, while Kell's claim is simply for reversing by taking out and reversing the counter shaft. The two modes are entirely different, and the velocities cannot be changed by his.

The Patent Commissioner erred in giving Kells a patent, because the evidence filed by him, if it proves anything, proves that Horse Powers made by him on his plan, were sold and used, with his knowledge and consent, more than 2 years before his application for a patent, and it is a special provision of the law that in such a case the Commissioner has no authority to grant a patent, and if he does grant such a patent, it cannot be sustained in any Court; and a license from Kells under this patent, will not authorise R. H. Pease to make and vend Horse Powers on your plan, because Kell's claim does not cover the improvement patented by you; and if said Pease continues to make and sell your horse powers, I would advise the suit at law against him, so that the witnesses may be examined orally before the jury. Yours respectfully,

CHAS. M. KELLER.

Aug. 21—w1t—m1t.

REMOVAL.

THE post-office address of the undersigned is changed from *Macedon, Wayne County, N. Y.*, to UNION SPRINGS, CAYUGA Co., N. Y.

The Nursery business will be continued at Macedon as formerly, by the subscriber in connection with E. W. HERENDEEN, and extensive preparations are made to fill wholesale and retail orders, in a satisfactory manner, at low prices, and with the accuracy which has always distinguished this establishment, none but thoroughly proved fruits being propagated for sale. Correspondence in relation to the business may be addressed to THOMAS & HERENDEEN, at Macedon, or to the subscriber at Union Springs.

J. J. THOMAS.

KINDERHOOK NURSERY.

THE subscriber having purchased the Kinderhook Nursery of Mr. Henry Snyder, has ready his catalogue of FRUIT and ORNAMENTAL TREES, SHRUBS, VINES, &c., with prices attached, and will forward to all those whose applications are accompanied with a stamp. Address

JOHN H. CORNING,
Aug. 7—w4tm4t Valatie, Columbia Co , N. Y.

WM. R. PRINCE & CO.,

FLUSHING, N. Y.,

OFFER for planting the present and ensuing month, Premium Strawberry, an unrivalled collection at moderate prices. The new Descriptive Catalogue ready for applicants. Bulbous Flower Roots, the most beautiful of every class. Chinese Herbaceous and Tree Pæonias of 200 splendid varieties, Rhubarb of the choicest kinds, Large German Asparagus. Madder, Sea Kale. Patience Dock, and Licorice. In October the *Chinese Potato.* surpassing all other esculents, will be supplied at a reduced price, until when the public are invited to view our plantation of two acres. Also Garden and Flower Seeds in quantity. Fruit Seeds of all kinds, and Ornamental Tree and Shrub Seeds, and Stocks and young Trees, including Evergreens, for Nurseries. Priced Catalogues of every department for applicants. Aug. 7, w2tm1t*

To Agricultural and Horticultural Societies.

WE would particularly invite the attention of those Societies, who are about to make up their PREMIUM LISTS, to our large collection of Agricultural Books, which are peculiarly adapted for Premiums.

The awarding of Agricultural Books in the place of small Money Premiums, has been extensively adopted, and has given the highest satisfaction

Advantages of this Plan.

It promotes the dissemination of much needed information among farmers.

It combines the advantages of a Diploma with a Premium of intrinsic value.

It substitutes a permanent and expressive Token of Honor for the pittance which is frequently humiliating to the recipient

It avoids the fostering of a mercenary spirit among competitors, and better comports with the dignity of an honorable emulation between Friends and Neighbors.

We will be happy to furnish to applicants a catalogue of our Publications, which we consider most appropriate for the use of Agricultural Societies for Premiums. on which a liberal discount will be given. C. M. SAXTON & Co.,
Agricultural Book Publishers, 140 Fulton-st.,
July 24—w2tm1t. New-York.

COLOMBIAN GUANO.

(Copy.)

Phosphate of Lime,........................	81.12
Organic Matter with Ammonia,...........	8.17
Silica and Alumine,........................	5.41
Water,........	2.30
	100.00

(Signed) E. S. CARR,
Chemist to the State Agricultural Society of New-York.
Albany, 2d June 1856.

Analysis of Columbian Guano from James Lee & Co.

It will be seen from the above that it is far richer in Phosphoric Acid than any other Guano known, or than Ground Bones, and is equally characterized by the small percentage of water. It must rank high as a fertilizer.

2d June, 1856. (Signed) E. S. CARR.
For sale by A. LONGETT, 34 Cilff St., corner of Fulton,
Sept. 1—m1t. New-York.

A FARM FOR SALE.

FOR SALE, at $55 per acre, a farm of about 135 acres, of which over 30 are well timbered, situated in the town of Camillus, Onondaga County, 2 miles from Camillus Village, on the Central R. R. 6 miles from Syracuse, and a short distance from the Erie Canal. Churches and mills of all kinds near at hand. Excellent markets for all kinds of farm produce, within a short distance. For further particulars as to terms of payment, &c., address the subscriber at Belle Isle P. O., Onondaga Co., N. Y., or call upon him on the premises, or in his absence upon JONATHAN WHITE. Belle Isle.

Aug. 14—weow3t—m2t HAROLD M. WHITE.

Early Northern Muscadine Grape.

THE subscribers would respectfully invite all who are contemplating to set out vineyards in the Western States, to call at our village and see for themselves the great superiority of the Early Northern Muscadine Grape, over any other variety that is now cultivated, both in point of profit to the producer, and the perfect hardiness of the vine. We will take pleasure in showing anyone who is engaged in this business, that our statements are and have been perfectly correct respecting the profits of the Muscadine Grape for us over any other kind now before the public, which has been for 15 years as ten to one.

We have also on hand some thousands of strong, vigorous plants of the Muscadine Grape, which we shall sell at prices much lower than we have heretofore been able to afford them at, which will make it an object for nurserymen and those contemplating to set vineyards, to either come and see the stock on hand, or write at an early date, as they can be safely set either fall or spring. Roots that have heretofore readily sold for $5 each, we shall furnish for $3, and such as we have sold for $1, can be had for 60 cents each. Our good success in their production the season past, has enabled us to reduce the price; great allowance, even from those prices, will be made to those who purchase in large quantities and pay down on delivery. But we will vouch for the superiority of this grape in the North or Western latitude, over any other kind of grape now before the public, as we have thoroughly proved the different varieties, and therefore feel confident that our statements will prove truthful to all that wish to give them a fair trial, either as a wine or a table grape.

P. STEWART,
D. J. HAWKINS,
Aug. 21—w2tm1t* New-Lebanon, N. Y.

To all our Friends Who Have Orchards.

WE are told that to make good cider, the pomace must be allowed to remain at least 12 hours before subjecting it to the operation of pressing; but as with the common portable cider mills now in use, this is impossible, except with the trouble of emptying the pomace into a barrel, and the next day bailing it back again in small quantities into the press, the pomace is now usually pressed immediately after grinding, and hence dull, muddy, stupid, instead of pure and clear cider. Hearing a good deal of this kind of talk last autumn, we asked ourselves whether we could or not make a cider press of the kind required, upon the principle of our patent parallel lever Hay Press As the movement of the parallel toggles makes each end of the follower or platen, start at the same instant of time; and as one of each of the toggles is placed at, or near each end of the platen, and in this way prevents it from tipping, and so leaves an equal pressure at every point upon the pomace, the idea of the application as above struck us quite favorably. We then commenced a series of experiments which has now resulted in an excellent and powerful cider press, operated by our parallel toggles; and so constructed that the frame of the mill, or grinding apparatus, constitutes a part of the frame of the press, and the pomace falls directly from the grating cylinder into the press. For a portable cider mill, this press may be made to hold four or five barrels of pomace without at all interfering with a convenient portability. The farmer may now commence grinding his apples—the pomace falls directly into the vat of the press; and when, without any stopping, he has ground four or five barrels, he can then afford to let this amount of pomace lie over night, as a fountain from which to draw good, pure, clear cider the next morning. The portable machine may be made to operate by either horse or hand power, as desired; while mills and presses upon this principle may be made of whatever capacity required. Though operated by hand power, yet such is the power of these parallel toggles, that the power of this press may be said to be almost illimitable. Prices according to the size of the mill and press, from $60 to $100.

WILLIAM DEERING & CO.,
Manufacturers of Dederick's Parallel Lever
Hay Pressses, Albany, N. Y.
August 12. 1856—w1tm1t.

Short-Horn Durham Cattle and Leicester Sheep.

To the Breeders of North America.

MR. RALPH WADE Jr., having for several years reserved his Breeding Stock for the purpose of taking advantage of his various importations,

Will on the 15th October, at Eleven o'clock,

Offer for sale their increase at his farm, near Cobourg, C. W. To those unacquainted with his stock, he would merely remark that they have appeared extensively as prize takers at the Provincial Exhibitions of Upper and Lower Canáda, New-York State, and elsewhere, and that no pains or expense has been spared to render the Herd equal to any thing to be found on the Continent. The Cattle consist of pure Durham Bulls and Heifers of various ages and pedigrees, while the Sheep are imported from the best stocks in England. To save trouble the lots will be set up at a moderate upset price, beyond which no reserve will be made. A few fine Grade Cows, Heifers and Horses will also be offered.

The place of sale is situate 4 miles equi-distant from Port Hope and Cobourg, either of which places can be reached by the daily Ontario steamers. Cobourg, July 31—w11tm2t

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Short-Horn Bull for Sale.

BEAUFORT, red and white roaned, calved Sept. 7th, 1855, got by imported Bates Bull Lord Ducie.* (13181) out of Daisy 7th by Duke, 444 A. H. B.—a son of Mr. Vail's imported Duke of Wellington (3654)—G. D. Daisy 4th by imported Wildame Bull Prince, 841 A H. B., G. G. D. Daisy bred by Gen. Van Rensselaer and got by President (4750)—Active by imported Washington (1566);—imported Pansy by Blaise (75);—Primrose by Charles (127)—by Blythe Comet (127)—by Prince (531)—by Patriot, (486) &c., &c. Price $200.

Beaufort is large for his age, is in fine order, and is a beautiful animal.

Also several very fine heifers, got by imported Lord Ducie,* (13181); and five cows of very superior characters and pedigrees, all thorough-bred. Prices ranging from $200 to $500 each. DR. HERMAN WENDELL,

Albany, July 31, 1856—w&mtf

* LORD DUCIE, (13181) rich roan, bred by R. Bell, of Lancashire, England, imported by Dr. Herman Wendell, got by Mr. Bates' Bull 5th Duke of York (10168);—who is full brother to 4th Duke of York, (10167) the sire of 2nd Grand Duke, for whom Mr. Thorne paid 1000 guineas in England last year, Dam, Briar by 2nd Duke of Oxford (9046); who is *also grand-sire*, on the Dam's side, of Col. Morris' Duke of Gloster, for whom was paid 650 guineas at Lord Ducie's sale; Grand Dam Beauty, by 2nd Cleveland Lad (3408); who is the sire of Mr. Thorne's Grand Duke, (10284); who was purchased in England three years ago for 1000 guineas; Gr. Gr. Dam Beauty, bred by Mr. Bates, and got by his 2nd Earl of Darlington, (1945) who was got by the famous Belvidere, (1706) out of Young Trinket by Symmetry (643); Gr. Gr. Gr. Dam, Mr. Bates' Duke of Cleveland, (1957) &c. &c., &c.

Singer's Sewing Machines.

THESE machines have long sustained the highest reputation in the United States The first prize—a Gold Medal—has recently been awarded to them at the great Exposition at the Palace of Industry at Paris, and thus they have he World's verdict of superiority.

Ten times as much Work can be done in a day.

The greatest clothing and best manufacturing establishments in the country use these machines exclusively. They are competent to perform every sort of work in the most perfect style.

As there are very great numbers of inferior or entirely worthless sewing machines of the Lerow & Blodgett, Avery, Wilson, Grover & Baker, and other patents, which have been sold, but cannot be used to any advantage, we hereby offer to receive all such machines and also unimproved ones of our own manufacture, in exchange for new and latest improved machines, on liberal terms. All old machines thus obtained by us will be broken up and destroyed. For particulars apply by letter or personally at the New-York office.

Local agents wanted to make sales of our improved sewing machines. To persons properly qualified for the business a rare opportunity for profitable and pleasant employment is offered. I. M. SINGER & CO.,

Principal Office 323 Broadway, New-York

BRANCH OFFICES.—47 Hanover-street, Boston; 142 Chestnut-street, Philadelphia; 105 Baltimore-street, Baltimore; 223 Walnut-street, Cincinnati; 18½ St. Charles-street, New-Orleans; Gloversville, New-York; 334 Broad-street, Newark, New-Jersey; 387 Broadway, Albany, N. Y.

July 31—w13tm1t

Important Books for Farmers.

ALLEN'S *American Farm Book.*—The American Farm Book; or, a Compend of American Agriculture, being a practical Treatise on Soils, Manures, Draining, Irrigation, Grasses, Grain, Roots, Fruits, Cotton, Tobacco, Sugar Cane, Rice, and every Staple Product of the United States; with the best methods of planting, cultivating, and preparation for market. Illustrated by more than 100 engravings. By R. L. Allen. Cloth, $1.

Browne's Field Book of Manures—Or, American Muck Book; treating of the Nature, Properties, Sources, History, and Operations of all the Principal Fertilizers and Manures in Common Use, with Specific Directions for their Preservation and Application to the Soil and to Crops. By D. Jay Browne. $1.25.

The Stable Book.—A Treatise on the Management of Horses, in relation to Stabling, Grooming, Feeding, Watering, and Working, Construction of Stables, Ventilation, Appendages of Stables, Management of the Feet, and Management of Diseased and Defective Horses. By John Stewart, Veterinary Surgeon. With notes and additions adapting it to American Food and Climate. By A. B. Allen. $1.

Allen's Diseases of Domestic Animals.—Being a History and Description of the Horse, Mule, Cattle, Sheep, Swine, Poultry and Farm Dogs, with Directions for their Management, Breeding, Crossing, Rearing, Feeding, and Preparation for a profitable Market; also, their Diseases and Remedies. By R L. Allen. Cloth, 75 cts.

Johnston's Elements of Agricultural Chemistry and Geology.—With a Complete Analytical and Alphabetical Index, and an American Preface. By Hon. Simon Brown, Editor of the "New England Farmer." Price $1.

Guenon on Milch Cows: A Treatise on Milch Cows, whereby the quality and quantity of Milk which any Cow will give may be accurately determined by observing natural marks or external indications alone; the length of time she will continue to give milk, &c., &c. Illustrated with numerous Engravings. Price, neatly done up in paper covers, 37½ cents, bound in cloth, 62½ cents.

SENT FREE OF POSTAGE ON RECEIPT OF PRICE.

A full Catalogue of our publications, comprising eighty works on Agriculture, sent to any address.

C. M. SAXTON & Co., Agricultural Book Publishers,
July 31—w2tm1t 140 Fulton-st., New-York.

For Wheat and Grass Land.

THE LODI MANUFACTURING COMPANY are preparing, and have now for sale, to use upon winter grain and grass, a large quantity of

TAFEU,

Every 100 lbs. of which they will warrant to be composed of
70 lbs. of dried night soil, screened through a ¼ inch screen,
25 lbs. No. 1 Peruvian Guano, and
5 lbs. of calcined plaster, and nothing else.

This article we desire to have tested along side of any other fertilizer in market at the same cost, believing that it is fully equal, if not superior, to any other.

Price $35 per ton, delivered on board of vessel or rail road in the city of New-York.

Also, POUDRETTE, in large or small quantities, constantly on hand, and ready for delivery at the usual price, $1 50 per bbl., for any quantity over 7 bbls.

☞ The L. M. Co. have been engaged over 17 years in the manufacture of Poudrette—have $100,000 permanently invested in the business, and have purchased, for 5 years to come, the entire monopoly of all the night soil from the city of New-York, and are therefore deeply interested in the reputation of their manufactures. Pamphlets will be sent gratis to any one applying to the

LODI MANUFACTURING CO,
Aug. 14—w8tm2t 60 Cortland-st., New-York.

A. LONGETT,

34 CLIFF-STREET, NEW-YORK.

PRICES OF FERTILIZERS FOR FALL 1856.

PERUVIAN GUANO, No. 1, with Government brand and weight upon each bag,.....	per ton of 2,000 lbs.,	$53 00
COLUMBIAN GUANO, ...	" .... "	36 to 40.00
SUPERPHOSPHATE OF LIME,........	"	45.00
BONE DUST, Ground, ...	per bbl.,.......	2.50
" Turnings, ...	"	2.37 to 2.50
" Sawings................	"	3.00
" Mixed fine ground,.......	"	2.75 to 3.00
PLASTER OF PARIS............ ...	"	1 00 to 1.25

There is an inferior grade of Peruvian guano which has the Government brand on the bags—can be detected by the figure 2 under the weight mark A. LONGETT,

34 Cliff St., Corner of Fulton,
Sept. 1—m1t. New-York.

Great Sale of North Devon Stock.

THE whole and entire he rd of pure NORTH DEVON CATTLE imported and bred by R. H. Van Rensselaer, of Morris, Otsego county, N. Y., will be sold without reserve, by public sale, at WATERTOWN, on *Thursday* the 3d day of October, at 1 o'clock, on the ground appropriated to the New-York State Agricultural Society on the 30th Sept., and 1st, 2d, and 3d of Oct. next, consisting of *twenty-three females and three males*, which includes among the latter the celebrated and imported bull "Megunticook," winner of the first prize at the show of the American Institute in 1850, and also the first prize at the New-York State show in 1851.

Nothing is risked in pronouncing this herd one of the three best herds of North Devons in the United States, and unsurpassed by any one of them.

Catalogues will be furnished on application at the offices of Secretary of the New-York State Agricultural Society, Boston Cultivator, and Albany Cultivator, by Col. L. G. Morris of Fordham, Westchester Co., and the undersigned at Butternuts, Otsego Co. H. STURGES.

July 10—w8tm2t

E. G. COOK,

Belleville, Jefferson County, N. Y.

BREEDER of Devon Cattle—French, Spanish, Leicester, South-Down and Cross-Breed Sheep,—Suffolk Pigs and Brahma Fowls. July 17—weow4tm3t*

Pure Bred Suffolk Pigs.

THE subscriber has for sale a few very choice Pure-blooded Suffolk Pigs, bred from stock imported by Sol. W. Jewett, Esq. E. MARSHALL.

July 10—w&mtf Poughkeepsie, N. Y.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep, French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan 1—w&m1y*

MANNY'S
COMBINED REAPER & MOWER

AND

Forbush's Combined Reaper and Mower,

For sale by GRIFFING, BROTHER & Co.,

May 29—w&m3m 60 Courtland-st., New-York City.

Hay Presses ! Hay Presses !

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 9th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

WILLIAM DEERING & CO.
Premium Agricultural Works, Albany, N. Y.

Dec. 27—w&mtf

Willis' Patent Stump-Puller.

THIS is a Machine of vast power; and for extracting stumps, large or small, it has no equal. It will take out from 12 to 20 an hour, without difficulty, and with but a

SINGLE YOKE OF OXEN.

It is also the best Machine yet invented for

MOVING BUILDINGS.

All progressive men who desire to bring their waste lands at once into market, or a state of fertility, are invited to address or call on the patentee, WM. W. WILLIS, Orange, Mass., or John Raynolds, at C. M. Saxton & Co.'s, No. 140 Fulton-st., N. Y., where a working model may be seen, and other information obtained. June 12—w&mtf

---

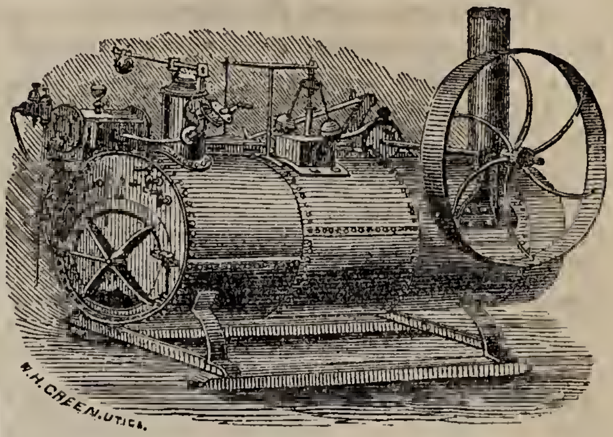
NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,

GRIFFING BROTHER & CO.,

Feb. 14—w&mtf 60 Cortlandt-St., New-York.


W.H. GREEN, UTICA.

PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

PRESENT LIST OF PRICES.		*Weight.*
2½ horse power,	$225	1500
3 ...... do	$275	1800
4 ...... do	$340	2000
6 ...... do	$520	3500
8 ...... do	$680	4500
10 ...... do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.

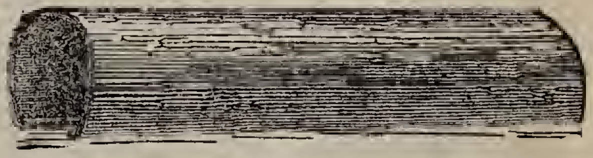
Jan. 31—wtf—May 22—mtf A. N. WOOD & CO.

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

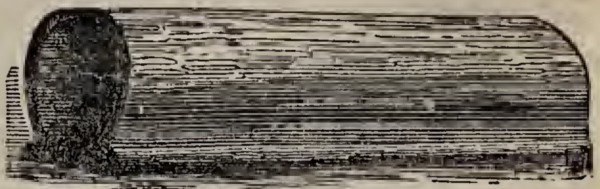
THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small count will be made.

HORSE SHOE TILE, 14 INCHES LONG.



PIECES.		
2½ inches calibre,	$12	per 1000
3½ " "	15	"
4½ " "	18	"
5½ " "	40	"
8 " "	80	"

SOLE TILE, 14 INCHES LONG.



PIECES.		
2 inches calibre,	$12	per 1000.
3 " "	18	"
4 " "	40	"

Also on hand 6 inch calibre Octagon pipe, $20 per 100, and 8 inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Late BABCOCK & VAN VECHTEN,
Aug. 14—w&m3ms. Albany, N. Y.

RICH'D H. PEASE, Agent,
Excelsior Agricultural Works, Warehouse and Seed Store,
369 & 371 Broadway, Albany, N. Y.

Agricultural Books,

For sale at the office of the Country Gentleman.

To Farmers and Manufacturers.

The U. S. Flax and Hemp Co., No. 28 Pine-st., New-York,

MANUFACTURE the economical and yet successful Flax and Hemp Machines, and are prepared to fill orders for the different sizes of Hand and Power Flax and Hemp Brakes and Scutches made by them, for Mill and Plantation use, and sold with the fullest guarantee as to durability and performance.

Sixty tierces prime Flax Seed, selected for sowing, fo sale. Orders must be directed to E. F. Hovey, at the Depot of the Company, 28 Pine Street. Refer to

EDW. S. GOULD,
17 William-st., New-York.
July 10—w1tm5t*

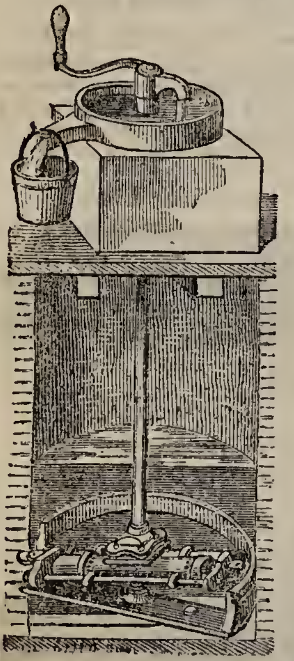
FOR SALE,

THAT SPLENDID ISLAND in the river St. Lawrence, known as **Hacey Island,** situated in the town of Louisville, St. Lawrence Co., N. Y., 30 miles below Ogdensburgh, containing 1868 acres of excellent land, adapted either for pasture or tillage. It is well known as the best grazing land in the county—100 acres are under cultivation, and well fenced, with 8 complete farm steadings, in addition to the Homestead on which there is a commodious dwelling, barn 160 by 40 feet, sheds 400 by 21, workshop, granary, &c., all in good repair. Also several large orchards, and a splendid hard-wood bush—no waste land. Terms—one-half down—remainder as agreed on. Apply to the proprietor,

WILLIAM R. CROIL,
June 12—w2tm3t* Louisville, St. Lawrence Co., N. Y.

Lindsey's Double Acting

ROTARY FORCE AND LIFT PUMP.



THIS pump has just been patented in America and England, and far excels any pump heretofore invented; its peculiarities are *simplicity, power* and *cheapness*. Its simplicity: there is nothing about it but iron and cast metal, and it can be taken apart and put up by any one, and will last for an age. It has the power to raise water hundreds of feet. This pump is from 24 to 30 inches in diameter and must set in the well or water. Water rises in it by hand 100 feet per minute! For cheapness: a No. 1 pump (for all ordinary purposes) complete, and fifty feet of pipe, costs but $30! The handle at the top, turns the pipe and pump, and every revolution fills the cylinder twice, affording an abundant supply of water with the least possible expense and labor. It is peculiarly adapted to deep wells, railroad stations, mining and manufacturing purposes. This pump does not throw water, and is guarded against freezing and rust. Practical and scientific men pronounce it as without an equal, for all that is here claimed for it. The "Scientific American," after seeing it in operation, says: "This pump is very simple in construction, not liable to get out of order, durable, easily operated and economical; we regard it as an excellent improvement." Circulars, with an accurate drawing and full description, sent free of charge to all parts of the country. No. 1, has a one inch pipe; No. 2, 1¼ inches; No. 3. 1½ inches; and the prices. with 50 feet of pipe, **$30, $42,** and **$54**; the No 2 and 3 are designed for *very deep wells, railroad stations, &c*, where much water is required. The subscriber is the general agent for the sale of these pumps to all parts of the world, and exclusive Agent for New-York. Orders must be accompanied by the cash, and should be explicit as to the kind of pump wanted, depth of well, shipping address, &c. They will meet prompt attention. A pump and pipe weighs about one hundred and seventy pounds. No charge for shipping or cartage. Wells over fifty feet should have extra gearing, which costs $3.

JAMES M. EDNEY,
Commission Merchant, 56 John-Street, N. Y.

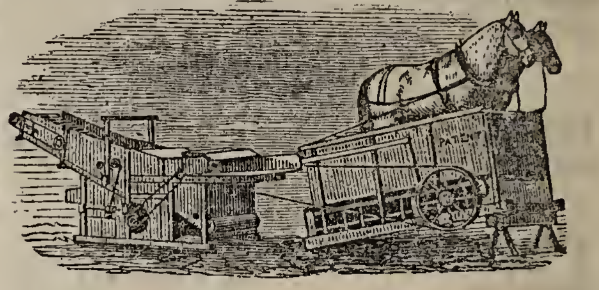
For sale also by H. Lindsey, Inventor, Asheville, N. C.
July 3- weow2tm6t

THE EXCELSIOR CIDER-MILL,

"KRAUSER'S PATENT."

THE subscriber having tested this mill personally, during the past *Fall* and *Winter*, and ascertained from actual experience, where it was imperfect, has made several important improvements in the pressing arrangements, and now offers it to the public as the only *Cider-Mill* that will perform the operation of grinding and pressing apples perfectly. Two good men can grind and press out from 6 to 8 barrels of cider in one day. The making of cider is only one of the advantages of this mill. Cheese and lard can be pressed with it, and we have sold several to people who say they have pressed their clothes dry instead of wringing them, which wears them out much quicker than the actual wear of the clothes, while the pressing does not wear them at all. The price of these machines is $45 each, with a full warrantee. All orders and communications promptly answered by addressing

RICH'D H. PEASE,
Albany, N. Y.
July 24—w6tm2t



Schenectady Agricultural Works.

IN consequence of the increased demand for their Improved RAILWAY HORSE POWERS,
THRASHERS AND SEPARATORS,
Combined THRASHERS and WINNOWERS.
Circular SAWING MACHINES and CLOVER HULLERS,

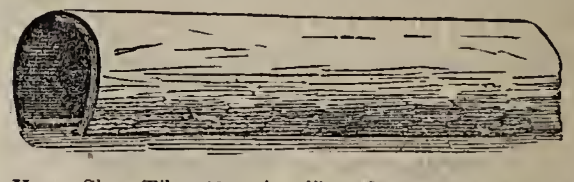
The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly.

G. WESTINGHOUSE & CO.
Schenectady, March 6, 1856—w&mtf

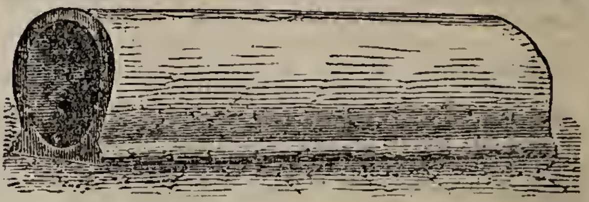
Artcher & Co.'s Tile Works,

Near the Orphan Asylum, on the Western Plank Road—Office 63 Quay-street, near the Steam-boat Landing.

THE subscribers are prepared to furnish Drain Tile of all sizes and patterns at reduced prices, and warranted as good as any made in America—their length being 14 inches—(1000 will lay 76 rods of drain.) On a large order a liberal discount will be made.



Horse Shoe Tile—4½ inch calibre, $18 per 1000—3½ inch, $15 per 1000—2½ inch, $12 per thousand.



Sole Tile—4 inch calibre, $40 per 1000—3, $18 per 1000—2, $12 per 1000.

Also on hand Horse-Shoe Tile, suitable for small streams and out-houses, at $8 per 100. Also large Tile, suitable for cellars, cisterns, sinks, &c, at $4 and $6 per hundred. Tile delivered at the docks and railroads free of cartage. Specimens can be seen at Clark & Gifford's. 39 Quay-st. Orders thankfully received and promptly attended to. Address

J. ARTCHER & CO., Albany, N. Y.

DISSOLUTION.—The copartnership heretofore existing under the firm of Appleton & Alderson, is this day dissolved by mutual consent. Feb. 1st, 1856.

As usual, orders for Tile will be thankfully received by

GEO. ALDERSON, Agent,
Albany.
May 8—w&mtf

Farm Lands for Sale.

THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL OVER

Two Million of Acres of Farming Lands,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE lands were granted by the Government, to aid in the construction of this Railroad, and include some of the richest and most fertile Prairies in the State, interspersed here and there with magnificent groves of oak and other timber. The Road extends from Chicago, on the North-East, to Cairo at the South and from thence to Galena and Dunleith, in the North-west extreme of the State, and as all the lands lie within fifteen miles on each side of this Road, ready and cheap means are afforded by it for transporting the products of the lands to any of those points and from thence to Eastern and Southern markets. Moreover, the rapid growth of flourishing towns and villages along the line, and the great increase in population by immigration, etc., afford a substantial and growing home-demand for farm produce.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc.

Economy in cultivating and great productiveness are the well known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very *large profits.* A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to 2 50 per acre. By judicious management, the land may be plowed and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market.

Bituminous coal is mined at several points along the Road, and is a cheap and desirable fuel. It can be delivered at several points along the Road at $1 50 to $4.00 per ton; Wood can be had at the same rates per cord.

Those who think of settling in Iowa or Minnesota, should bear in mind, that lands there, of any value, along the water courses and for many miles inland, have been disposed of;—that for those located in the interior, there are no conveniences for transporting the produce to market, Railroads not having been introduced there. That to send the produce of these lands, one or two hundred miles by wagon to market, would cost much more than the expense of cultivating them; and hence, Government lands thus situated, at $1 25 per acre, are not so good investments as the land of this company at the prices fixed.

The same remarks hold good in relation to the lands in Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons, or interrupted water communications, increases the expenses of tranportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in cost of transportation, especially in view of the facilities furnished by this Road, and others with which it connects, the operations of which are not interrupted by the low water of summer, or the frost of winter.

PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for Deeds may be made during the year 1856 stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract.

Interest will be charged at only 3 per cent. per an.

As a security to the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that at least one tenth of the land purchased shall yearly be brought under cultivation.

Twenty per cent. from the credit price will be deducted for cash. The company's construction bonds will be received as cash.

Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.

They will be 12 feet by 20 feet, divided into one living and three bed-rooms, and will cost complete set up on ground chosen anywhere along the Road, $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

Special arrangements with dealers can be made to supply those purchasing the Company's lands with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices.*

It is believed that the price, long credit, and low rate of interest, charged for these lands, will enable a man with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to

JOHN WILSON,
Land Commissioner of the Illinois Central R. R. Co.
Office in the New *Stone Passenger Depot*, foot of South Water Street, Chicago, Ill.
May 1—m6t

UNITED STATES AGRICULTURAL

Warehouse and Seed Store.

MAYHER & CO., Nos 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,

FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz: —

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle **D** and **F** Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers

Churns; fifty different styles, among which is the "THE-ROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—m'f

---

DEVON CATTLE.

THE subscriber's second ANNUAL CATALOGUE of DEVON CATTLE, bred entirely from stock of his own importation, is now ready. It contains full pedigrees of all the animals in his herd; of which he offers a number of very superior bulls and heifers for sale.

Also ESSEX PIGS, bred from the best importations.

Address,
C. S. WAINWRIGHT,
Rhinebeck, Duchess Co., N. Y.
April 1—w&m6ms.

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Hickok's Patent Cider Mill and Press.

PERSONS wishing to purchase this *valuable cider-mill*, will please send in their orders early, as we could not supply the demand last year. It has *improvements* over *last year's mill*. Price $40.

GRIFFING BROTHER & CO.,
Aug. 21—w&m3m 60 Courtlandt-st., New-York City.

Cider Mills and Presses.

HICKOK'S AND EMERY'S PATENTS, for sale by A. LONGETT, 34 Cliff st., corner of Fulton,
Aug. 14—w6tm2t. New-York.

FARM WANTED.

WANTED—A small farm of between 60 and 80 acres, (within as many miles of New-York City preferred). Please address S. P. MARVIN, Chester, Orange Co., N. Y., stating terms, &c., &c. Possession not wanted till spring
Aug. 14—w4tm2t

Bundy's Patent Potato Digger.

WE NOW offer this valuable *labor-saving* implement to the farmer. Price $6.
GRIFFING BROTHER & CO.,
Aug. 21—w&m3m 60 Courtlandt-st., New-York City.

Fresh Imported Hyacinths, Tulips, &c.

THE subscribers have just received from the leading Florists in Holland, an unusually fine and extensive assortment of Double and Single Hyacinths, Tulips, Polyanthus Narcissus, Double Narcissus, Jonquilles, Crocus, Crown Imperials, Fritillarias, Gladiolus, Iris, Ixias, Lilies, Arums, Anemones, Ranunculus, Colchicums. Snowdrops, Aconites, Oxalis, Lachenalias, Amaryllis, Early Roman Narcissus,&c., &c., to which they invite the attention of amateurs. Retail Descriptive Catalogues, with directions for culture, furnished applicants enclosing a stamp for return postage.

Dealers and Nurserymen supplied in quantities at as low rates as usually paid for the refuse bulbs from auction.

A good assortment of Hyacinth Glasses, Fancy Crocus Pots, &c., &c. JAMES M. THORBURN & CO.,
Sept. 1—weow6tm3t 15 John-st., New-York.

Sale of Hereford Cattle.

THE subscriber will sell at public sale on the 3d day of October next, on the grounds of the N. Y. State Agricultural Society at Watertown, Jefferson Co., the following stock, to wit:

Six yoke grade Hereford steers, 4 years old last spring, well broken and fit for service.

His imported Hereford Bull, Charles 2d, alved in the autumn of 1850, and bred by Mr. Wm. Hewer, who is one of the first Hereford breeders in England.

His thorough-bred Short-horn Bull, Pope, red—calved January 24, 1853, and bred by Col. Sherwood of Auburn.

Cards of the pedigrees of both the Hereford and Short-Horn bulls can be obtained on the Fair Ground at Watertown, or by addressing the subscriber at East Springfield P. O., Otsego County, N. Y. G. CLARKE.
Aug. 7—w9tm1t

HICKOK'S PATENT PORTABLE

Keystone Cider and Wine Mill,

PATENTED November 20, 1855. Manufactured at the EAGLE WORKS, Harrisburg, Pa. Please take particular notice that this is an entirely new Mill—no expense has been spared in its manufacture—all the materials are the very best, and are used unsparingly. The cylinders are almost twice the length of the former ones, and all, including the top cylinder, made of Iron. The screw is TWO inches in diameter, with a heavy ½ V thread cut on it. The beam of the Press is CAST IRON instead of wood—is made VERY HEAVY, and the thread of the nut cut FOUR inches through it. The power of the Press is very much increased, and it cannot be broken by any fair means. The arrangement of the Tub, and other parts of the Press, is very perfect. The boxes and hopper are all DOVETAILED together; the journals run in long bearings; and lastly, the workmanship shall not be excelled by any machine of the kind whatever. Perfection being the aim, both in the arrangement and the mechanical department.

This mill will grind faster with less power than any mill in the market. The press is decidedly the most powerful one that has yet been put onto portable cider mills.

☞ More than one hundred Silver Medals and Diplomas have been given to my Mill within the last four years.

☞ This Mill occupies about 2½ feet by 3 feet, and is 4 feet high, weighing 370 lbs., is every way portable and convenient. Price $40. Address W. O. HICKOK,
Agent Eagle Works, Harrisburg, Pa.

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The Illustrated Annual Register.

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FORBES.

THE CULTIVATOR.

VAN VRANKEN, N.Y.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. IV. ALBANY, OCTOBER, 1856. No. X

Brædalbane Farm—A Bourbon Farm—Conclusion.

You leave Lexington by an excellent turnpike road, and one of the pleasantest, too, that diverges from the town, and a drive of seven or eight miles, here and there through a regular avenue of locusts and other shade trees, and all along over a beautiful rolling country, soon brings you to Brædalbane Farm, the summer residence of Rev. Dr. ROBERT J. BRECKINRIDGE. We were much gratified in having been so fortunate as to find him at home. A heavy shower of rain that sprang up during our call, was more welcome to the parched crops and thirsty streams, than to one engaged in the pursuit of knowledge out-of-doors; and, although enjoying it heartily, we can but regret that it prevented our seeing as much of the farm as would have otherwise been the case. It required, nevertheless, no extraordinary perceptions to be convinced that the estate bears ample witness to that skill and enterprise in agriculture which would be expected under the supervision of one so eminent in other callings and yet so fond of this. Of between six and seven hundred acres, about one-third are in woodland pasture; corn is one of the chief crops raised on the remainder, while hemp, the small grains, meadow and orchard, come in for their respective shares. The Short-horns on the place are of noted purity and excellence; its great product of all others, in a money point of view, however, is mules, which are bred to a considerable extent, and fed on a still larger scale.

In conversing with Dr. B. we obtained much information that assisted us materially in reviewing and moulding into form the ideas previously gathered on the subject of Kentucky agriculture in its different departments, and not less, we may add, on other themes not embraced in the scope of the present writings. If the parks of Kentucky are the finest in this country, they are by no means entirely spontaneous efforts at beauty on the part of Dame Nature; the soil so fertile in grass and herb, yields many a crop of weeds quite as thrifty of growth and far more tenacious of existence, and to the farmer who would avail himself of all the wealth at his command, both in landscape and in pasturage, there must be a continual struggle with these pertinacious invaders. A weed of one kind will seem to be invincible for a while, and when it retires at last, proves only the precursor of another and not less troublesome variety. Dr. B. informed us that for three months each season, we think for thirty years, his hands had been engaged in eradicating the weeds from portions of the pastures, and they still require constant labor to keep them clean.

The corn crop raised on the plantation last year was 1,600 barrels of five bushels each, in addition to which a purchase was made of 400 more this season for feeding purposes. The average crop is about twelve barrels or sixty bushels to the acre, and prices were rating at a dollar per barrel. Dr. B. keeps a jack and thirty mares, and a number of horses; feeds nearly a hundred head of mules, and grazes a considerable flock of sheep and a proportionate herd of swine. Mule feeding he finds the most remunerative branch among the operations of the farm.

Mr. Warfield the elder, began breeding Short-horns about forty years ago; Dr. B. took it up in 1823, and they have both continued it ever since with care and attention—always preserving the records of pedigree where others have been discouraged by the temporary unpopularity of the breed, and only regarded purity of blood, and sometimes not even this. Prices were high from 1817 to '20, when first introduced, after which they declined, not advancing very materially again until, in 1838, they reached a second climax; they then fell back until the interest of the past few years has brought them forward once more. Dr. Breckinridge's herd numbers now about sixty head, of which twenty-five are breeding cows,—having been allowed to accumulate rather beyond his wants. He has therefore determined on a sale,* to take place, Oct. 7th, the week after the State fair, and to include old and young bulls, cows and heifers, to the number of about 46. He retains some of the older and younger of their number, as well as his interest in several imported animals, in order to keep up his own herd subsequently. He has bred always with a view to securing fair milking qualities, and we were much pleased with the cows of the herd, seen in the intervals of the rain. One of them he mentioned as quite a prodigy:

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* We have received a catalogue of this sale since our return. It embraces also a large number of geldings, mules, and sheep, and cannot fail to prove an attractive occasion to all lovers of good stock.

she has had *seven calves within three years*, of course dating from the time the first of them was dropped—three pairs of twins and one singly.

We were pleased to hear Dr. B. speak in terms so high of Mr. ALLEN'S "American Herd Book." In the light merely of a catalogue of the Short-Horns in the country, he regarded it as invaluable to any breeder, while one acquainted with the subject of pedigrees can easily bring the pretensions of owners to the test of examination. Objection has been made to it on the ground that it was not quite perfect; but it is far better than none, and fully as near entire accuracy, if not far nearer, than could have been expected under the difficult circumstances in which its contents were collected. He thought that the agricultural public should be congratulated on Mr. Allen's success.

We were much interested in a description by Dr. B. of the agriculture and population in those eastern counties of the State, embracing a section perhaps a hundred miles in width, mountainous, and for the most part wholly unimproved. Inhabited to a considerable extent by a squatter population, they subsist almost entirely on the scanty products of their own rough fields, breeding a few scrubby steers, making baskets, burning out tar, and digging ginseng root, to bring occasionally to Paris or Lexington for sale. Such a trip as this would be an event of too much importance for more than annual recurrence. They would hitch up what oxen they had to dispose of in front of a ponderous and roomy wagon of ancient fashion, and about as large as six of the present day, lade it with queer conical kegs of tar, containing from one to three gallons each, fill in with ginseng, and suspend the baskets at every available point without and around. Thus equipped, the caravan by slow marches reaches the town, where the curious cargo is disposed of, the few purchases of the year, embracing of course the indispensable barrel of whiskey, embarked, and with the one or two yoke of steers reserved to draw the almost empty wagon back, it navigates its way home again once more among the hills. The people and all their ways of life are, as might be imagined from the above, of a very primitive sort.

The next morning after our call on Dr. Breckinridge, we went up to Paris—a town of considerable business, especially on the noted monthly "Court-days," and surrounded by farms and herds that we understand fully vie with those in the neighborhood of Lexington. We had been in hopes of spending some time in viewing them, but succeeded in obtaining a glimpse of only a single place—the estate of BRUTUS J. CLAY, Esq. Of its extent, and thorough and careful keeping, much has been already said in the agricultural papers; and our opportunities were beside too limited to enable us to speak in detail. Mr. Clay's Short-horn herd is a large one—about a hundred in number. The bull 'Locomotive,' now four years old, is the most celebrated of the males; he has won many prizes, and is said never to have been beaten in his class. Some young stock of his siring was very meritorious. 'Diana,' a roan cow five years old, has been very successful as a prize taker. 'Lady Caroline' was purchased of the importing company, in 1853, for $1,800, and 'Young Lord,' a fine stallion, at the same time, for $2,800.

Our long-extended and pleasant visit to Kentucky was here brought to a conclusion, and it is time that this series of letters, although they have by no means exhausted the subject, should be also closed. It is very difficult, unless for the most practiced eye and experienced memory, to retain the peculiar characteristics of so many and numerous herds, with sufficient accuracy and distinctness to enable one to speak of them at a future time in an intelligible way, or to compare them with each other in the mind at distant intervals of period and locality. If we have succeeded in conveying the impressions of our own judgment without serious errors of fact or apprehension, the purpose of the journey has been accomplished; if we might have presented more self-drawn comparisons, it has been preferred to leave it for the reader to judge and decide according to his own views, from the notes before him. Less has been said, perhaps, of the beauty and fertility of this whole limestone region, than might have been appropriate. The surface, sufficiently undulating to secure excellent drainage and to avoid the monotony to the eye of plain and prairie; the soil, of a dark brown color, uniting in its composition a clay body, with sufficient organic matter, and just lime and sand enough to form together the richest loam; the productiveness, apparently inexhaustible, at least with judicious treatment; the noble parks and extended corn and hemp fields; the stock, including horses, cattle, sheep and hogs, all of the very best blood; not least of all, the hospitality and cultivation of their owners, render the country and the country gentlemen of this part of the State interesting indeed to any one who would see American agriculture in one of its most refined and successful phases. Not but that here and there through our own and other States, we find farms as beautiful to the eye, and it may be yet more profitable to the bank account of the farmer; but probably in no other one locality of equal extent, are natural advantages so universally great and so uniformly well improved. It is moreover claimed as a peculiarity of the blue-grass-bearing territory, that cattle will improve upon it from generation to generation, while it is doubted whether the fine qualities of the best stock can be anything more than barely maintained on many other soils. On hill-sides where the rock crops out, the soil is, here as elsewhere, liable to be washed away, but in most places the rock is at a depth of from five to twelve feet, and nearer the latter figure; while there is a firm clayey subsoil between this and the loam above. Travelers compare the quality of the soil and the character of the country to those around Jerusalem, formerly the very garden of the earth, now worn bare and desolate.

—We came back to our editorial labors invigorated and refreshed in body, as well as with considerable acquisitions of information about the Agriculture of Ohio and Kentucky. In once more tendering our thanks for the attentions of friends, we may express the hope that some future occasion will permit us to renew the intercourse from which we at least have now derived so much pleasure,—in some portion of which we trust we have made our readers the participants. L. H. T.

Practical Farming in Salem County, N. J.

EDITORS OF COUNTRY GENTLEMEN—Your correspondent, D. E. E., not long since suggested that it might be of some use and interest for readers and correspondents of your valuable paper, from various and different sections of the country, to give a brief description of the different modes of agricultural practice in their respective neighborhoods, not only as to the application of manure, but in the various other arts and labors of the farm.

As an instance of how widely men differ in opinion and practice in a matter of some importance, he cites an elderly and experienced farmer, who declared he would as soon dump his barn-yard manure into the river as turn it under with the plow, with the expectation of receiving any benefit from it. Now I take it for granted, this experienced farmer has given what he speaks so confidently about, a full, fair trial, for nothing short of that would warrant so strong an assertion. Supposing this to be the case, a very little observation of the practice of others out of his own neighborhood, would lead perhaps to the conclusion that the fault was in his *land*, and that, if there are soils that may with any degree of propriety be termed *leaky*, his must certainly be of that character; in short, that something to change the texture of the soil, close up the *pores*, and stop the *leaks*, would be of more service than barn-yard manure. Lime and ashes would probably effect this, or perhaps an admixture of clay.

In my own neighborhood (and the remark will apply to a considerable part of the State where the soil is not adapted to truck), the land, after remaining in grass some two or three years, is broken up and planted with corn—the next season, oats or potatoes. Where oats are sown, the stubble is usually plowed soon after harvest, so as to give it ample time to rot—the ground harrowed, and marked out in lands about a rod wide for convenience of carting out the manure as well as the after plowing. The wheat is very generally put in with a drill at the rate of about 1½ bush. per acre, and the latter part of the 9th or first of the 10th month, is considered a favorable time.

The manure, be it remembered, is almost invariably turned under with the plow, deep enough to give it a good covering. As to harrowing *in* manure, every farmer knows it is much easier to harrow it *out*. This mode of treatment is generally successful; from 25 to 35 or more bushels per acre being the yield in some instances, though it frequently falls below these figures.

After drilling in the wheat, the ground is then left in a fine state for the timothy seed, which is usually sown soon after, at the rate of a bushel to five or six acres—clover seed, early in the spring, at about the same rate.

Land managed in this way, where the soil is naturally good, may, with the aid of lime, plaster, or marl, where it can be had conveniently, be kept in a high state of cultivation; indeed it will be the farmer's own fault if it deteriorates—his motto being to *farm no more than he can farm well.*

As my own practice differs a little from the above, I will give it though it will be extending this communication beyond what I intended. For a number of years past my course has been, after a field has lain in grass two or three years, according to the rotation (three I would prefer), it is planted two years in succession with corn—the first year, if manured at all, it is done very slightly in the hill; poudrette, hog manure and dirt, short compost, &c, are all very good used in moderation. The second year the same field receives a heavy coat of manure fresh from the barn-yard; 20 or 25 loads evenly spread, and well turned under with a large two-horse plow, is none too much, being careful to perform the operation when the ground is not too wet, otherwise it would scarcely be got in good order the whole season.

This manuring is of very little service to the corn in the *early stages of its growth*, so that the same kind of manuring in the hill will be advantageous. In the *latter part* of the season, however, when the corn is about setting and filling, I have never known the long manure to fail; even when the season has been dry and the corn has suffered, the field thus manured has stood the drought as well, or better, than the other. It is a great *desideratum* with most farmers, to give corn an early start in the spring, and there are advantages attending it—you get it out of the way of the birds, grubs, worms, and other depredators—it is fit to plow earlier, and before the weeds and grass have made any great headway, and when this is done you are then ready for some other work, and can drive it along without being *driven.*

When I succeed in giving my corn an early start, it is fit to cut up by the middle (or a little later) of the 9th month. This part of the work, cutting down and carrying over and setting up the corn, is a heavy one, especially when the crop is a full one, as we cut down 26 rows, carrying half one way and half the other, the most of the hills on the 27th and 28th rows being tied together for the support of the stooks, four hills together. The rows being so marked out that every four make a rod in plowing, it is thrown into lands two rods wide, leaving four corn rows to each row of stooks, to drive on in carting off both corn and stalks when husked. The two lands adjoining, it will be perceived, will be 1½ rods wide when plowed out and finished. When the ground is plowed in order to prepare it for the drill, a two-horse harrow is run over it twice in a place—the stubs are then all packed neatly in the furrows, and after another harrowing it is ready for the drill. If these operations are all performed as they should be, the ground will be left in good order for the grain cutter, mowing machine, horse-rake, &c.

To return a little. I believe it is a conceded point with practical farmers, that in order to raise a good crop of wheat, barn-yard manure is a very important auxiliary, and that with it, land that may be considered *thin*, will oftener succeed than *rich land* without it. Now as my practice is to plow under a coat of manure for the benefit of the corn, and let the wheat take what the corn leaves, making one manuring serve for the two crops, and this course has frequently been attended with success, sometimes raising from 50 to 60 bushels of the one and about half that quantity of the other to the acre, it will require some argument to convince me there can be anything wrong in turning manure well under with a plow, the opinion of an "experienced farmer" to the contrary notwithstanding. Even guano, that highly concentrated manure—has not the experience of farmers in this country established the fact that it is more beneficial when turned under with the plow than when harrowed in? As far as *my* observation has extended, it certainly has.

I intended to have said something about *potatoes*, and will do so now. A part of the field planted with corn the year previous, is appropriated to this crop, being plowed early in the spring, and at a suitable time harrowed and rolled; when ready to cart out the manure, it is marked out in lands about a rod wide, and manured as for corn, and turned under with a plow, planting potatoes of a middle size and cut with two eyes to a piece, in every third furrow—the furrows should not be large, or the rows will be wider than necessary.

Last season, having rather a lighter coat of manure on the ground than usual, I was induced to try the experiment of sowing broadcast about 250 pounds of Peruvian guano to the acre, which was turned down with the manure on the potatoes. The result was quite satisfactory—the guano on a small part of the ground being omitted. The yield was about 100 bushels per acre of large handsome potatoes and about 35 of a smaller size. The effect of the guano on the wheat, (the corn and the potato ground being drilled the same day,) was very *striking*, and was noticed by all the men in the field at harvest. I mention this for the benefit of those who may incline to try guano on their potato and wheat ground. Some of my neighbors seem to think that farming as I do with wheat after corn, there is a failure in the grass crop. It seems reasonable that this should be the case to some extent, and that the two crops of corn and wheat would pretty much absorb the strength of the manure. I have no cause to complain on that head this year, having cut more than 60 tons from 30 acres. A field of 11 acres, that was in wheat last year and yielded 29 bushels per acre of clean wheat, furnished very nearly three tons per acre of clover and timothy hay.

To conclude: My idea is that if you would get the full benefit of your manure, make the compost on the broad surface of a ten or a twenty acre field; give it a good covering of earth; plant corn on or near the surface; keep down the weeds and all other intruders; thin it out if it requires it, and if the season be favorable nature will do the rest. It is true you want compost for the garden, for various kinds of truck, for manuring in the hill, and sometimes for an old pasture field, and for these purposes it is well to have it on hand when needed—it is very apt, however, to run to waste. I have known some farmers let the manure made from 20 or 30 head of cattle, lay in the barnyard all summer, a perfect hot-bed for the flies, and then have to make a plank road over it to get into the barn with their hay and grain—the corn meanwhile making rather a stinted growth for the want of it. A Salem Co (N. J.) Farmer.

Our correspondent has our thanks for the above. We should be glad to receive similar statements from every county in the Union.—Eds.

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Farming on Long Island.

We visited the farm of Judge R. M. Conklin, situated at Cold Spring, Huntington, L. I., on Monday, Aug. 4th. It consists of 100 acres of tillable land, and 25 of woodland. The wood is mostly oak, chestnut, hickory and locust. Eighty acres of the cleared land are used for farming purposes, and the remaining 20 for a nursery, vineyard and garden. The arable part of the farm lies mostly on a rolling table land 200 feet above the level of the sea, and is reached by passing through a portion of the woods, which are situated on a steep side-hill facing to the west, and together with the dwelling-house, are separated from the main portion of the farm by the public road.

The surface soil is generally a gravelly loam resting on a loose, porous subsoil, but in some places the gravel seems to have entirely superseded the loam, if, indeed, there ever was any on such spots.

Hay is the most important crop raised, and the land is usually seeded down to grass in the fall with wheat, clover being sowed the following spring; about two tons per acre of good timothy hay is considered a good yield.

Wheat—Seventeen acres have been harvested this year. On this crop the Judge generally spends about $30.00 per acre for manure. He prefers horse dung and ashes, used in the proportion of three loads of the former to one of the latter. His wheat seldom averages above 20 bushels of grain per acre.

We were shown a very fine sample of White Mediterranean wheat, which was raised this year and last, as an experiment; it is white and very plump; the Judge intends to sow only this variety in the fall.

Indian Corn—Two lots were planted with this crop. The first containing four acres, was planted on a stiff sward, manured in the hill with barn-yard manure and ashes, and planted the 23d of May. It looks now very thrifty. The second lot, containing six acres, was planted on the 17th of May, on an inverted sod, without manure. The Judge said it had never been his practice to plant corn before without manure in the hill of some kind; but the season was so late this year he was obliged to depart from the general rule; this corn did very poorly in the early part of the season, and on the 20th of July he sowed it with 100 pounds Peruvian Guano per acre, since which time it has been doing better; it now promises a fair crop.

Oats—Ten acres were sown with this grain on April 15th, on corn stubble without manure; they are now being cut, and promise a fair yield. He has never used any fertilizer on this crop. We have no doubt that with the use of guano on land naturally as good as his, he could increase the yield at least one-third.

Buckwheat—A field of five acres was plowed the latter part of June for this crop, and again well plowed and the buckwheat sowed without manure on the 20th July; it looks well.

Potatoes—One acre of oat stubble was spread broadcast with 75 two-horse loads of barn-yard manure, which was plowed in, and the potatoes planted in drills four feet apart, the first of April; they have since been plowed between and hoed twice, and promise a fine crop.

Locust Plantation—About 20 years ago a lot of eight acres was planted with locust tree seed in corn hills, two or three seeds being put in every fourth hill; they came up well, and the trees in a few years got to quite a size; but three acres of them were so much injured by grubs that they were removed and a vineyard substituted; the rest are now large enough for posts and other uses.

The Orchard—An apple orchard, containing 6 acres of Newtown Pippins, fails badly; they have never borne a good crop, and the Judge says have always proved unfit for cultivation on this island, as far as he can find out from numerous inquiries. They usually promise well in the spring, but never get to any size, and become black and knotty. He thinks the climate effects this change in them.

An orchard of two and a half acres was planted a few years ago with sweet apples, designed for stock; the Marigolds and Seek-no-furthers were the principal varieties.

In this orchard hogs are turned in the spring, and they get their living on grass till the apples ripen, when they have abundance of food, and get quite fat by late in the fall, but are fed on corn for a few weeks previous to slaughtering.

Judge C. has practiced deep plowing and thorough cultivation for the last 20 years, and finds it not *only will* but *does pay*.

A description of the vineyard will be given in a subsequent number. As it required so minute and definite a description we concluded to make it the subject for another article.

Tuesday, August 12th, we visited the farm of Richard Raynor, Esq., situated in the town of Huntington, 39 miles from Brooklyn, and one mile from the village of Babylon. It consists of 100 acres of land, 50 under cultivation, 35 of woodland, and 15 of salt meadow. The dwelling and out-buildings, with some portion of the cleared land, lie on the north side of the turnpike, from whence it extends south about half a mile to the Great South Bay.

The soil consists of a black, sandy loam about eight inches deep, resting upon a subsoil composed of yellow sand and clay. The whole farm appears to be undermined with springs, from eighteen inches to six feet below the surface. We saw some post holes dug two feet deep, which were partly filled with water from these springs.

Manures—A swamp, composed of vegetable mould with a clay understratum, runs the whole length of the farm on the east line, and contains five or six acres. From this is carted every year a sufficient quantity of muck to compost with all the manures made. It has also been taken directly from the swamp and spread on the land with good results, especially to grass. Another great source of profit is found in sea-weed, which is obtained from the borders of the bay and thrown into the hog-pens and cattle-yards, as is also the muck. The barn-yards and hog-pens are made large, with a slope from all sides towards the center, so as to prevent the waste of liquid manures, and to allow room for an abundant supply of sea-weeds, muck and straw, which latter, if not all used in the stables, is made into manure instead of being sold. Mr. R. thinks it is cheaper to make than it is to buy manure, and it undoubtedly is where advantages similar to his are possessed. From these sources, added to the supplies made by his stock. (of six horses, four cows, and eight hogs,) he makes abundant manure for his own use.

A few apple trees, consisting of Fall Pippins, Spitzenburghs, and Russets, and also some grafted pear trees, are very full of fruit this year.

Ten acres of the salt meadow lands are used for pasturage, and from the remaining five acres is usually cut about 14 loads of Black grass and Sedge hay, which makes good occasional fodder, or when not used for that purpose is good for littering stock.

Barley—Four acres were sown April 10th, without manure, on land which was last year in potatoes, and was manured for that crop with 25 loads of horse and hog dung per acre. This grain will yield considerably above the average for last year, which was 34 bushels per acre.

Oats—Five acres of this grain were sowed April 20th, on corn and barley stubble without manure The crop was very fine; the best ever raised. Last year the oats averaged 40 bushels per acre.

Potatoes—Three acres were planted May 1st, in drills three feet apart, and ten inches apart in the drills. They were dunged at the rate of 20 loads of yard manure per acre; and look better than any we have seen this year, as they do not seem to have suffered from the drought which has caused so much injury to this crop on Long Island; last year they averaged 125 bushels per acre.

Indian Corn—A field of six acres was planted May 20th, with this staple. A tough sward was first covered broadcast with 20 loads of yard manure, which was plowed in eight inches deep; it was then planted in hills four feet apart, using five loads of dung per acre in the hills. Mr. R. says he used too much manure in the hills, and thinks it would have been applied to better purpose if it had nearly all been plowed under, only reserving some of the finest to give the corn a start. This crop usually averages about 50 bushels of shelled grain per acre, but we think it will rather beat that this year, as it is one of the finest looking fields of corn we have seen.

Turnips—Half an acre were sown broadcast July 28th, on corn stubble, which was plowed early in the spring and again plowed just before sowing the seed, turning under two loads of fine stable manure.

Wheat—Five acres were devoted to this crop. It is usually sowed the 1st of October, manured with from 20 to 25 loads of stable compost, and about 20 bushels of bone per acre. With this grain, grass seed is sown in the fall, and in the spring, clover seed; leaving the land for hay when the wheat comes off. The average yield was 23 bushels last year.

Mr. R. is very much in favor of soiling cattle, especially with corn cut green. He thinks the cattle do better on less than half the cost of pasturage; that more manure is made; and less trouble is taken in attending to them. He has a fine lot of corn fodder which he cuts from every evening, supplying it to horses, cows, and hogs, without discrimination, as they are all very fond of it. It is planted thickly in rows 10 inches apart, and manured with fine yard dung. He proposes to sow a few acres in rye this fall, to be cut green for his cattle in the spring and summer as it is wanted, and as fast as it is taken off the ground to supply its place with Indian Corn sowed in drills. In this way he can have a constant supply of green fodder all through the season.

We must add in conclusion, that Mr. R.'s farm shows a careful and systematic method of improvement throughout, worthy to be copied. *

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A Shoeing Stool for Blacksmiths.—The following is a description of a stool for blacksmiths for shoeing horses, which I have invented and found to be very convenient and useful, and I present it for the benefit of the craft. I make a light, portable stool, of the form of a common crutch, with one leg, and put a cushion on the seat. To this is secured a strap, which passes around above the hips, and is buckled tight in front. The seat of the stool is about four inches thick, and is held to its place in the leg by an iron spur. The blacksmith puts it on behind and between his thighs and buckles it in front, and the horse's foot is placed on the seat; it thus supports the weight of the animal's leg, and relieves the back of the shoer from that severe strain which makes horse-shoeing such hard work.—*Scientific American.*

Cost of Cutting and Making Hay.

A single and decisive proof of the benefits derived from improved labor-saving machines in farming, is afforded in the manufacture of grass into hay. Having recently come into possession of a farm, and at a time when a field of grass required immediate attention, it became necessary to employ the most expeditious mode of securing it. The meadow consisted of eleven acres; a part of it was quite rough, the previous occupant not having properly removed stones and other obstructions, much of the hay was "lodged," and a large portion consisted of tangled June grass and clover, rendered still worse by the decayed remains of last year's crop, which had been left in consequence of the extremely wet season at that time. This crop of grass was cut by D. Anthony, of Union Springs, with one of *Wood's Mowers*,* for seventy-five cents per acre, in a much better style than any hand-scythe could have done the work—and notwithstanding all the obstructions and difficulties, it sheared through dead and living grass, mice-nests, &c., with scarcely ever clogging. On the more favorable portions of the meadow, it cut for hours together, without clogging once. The horses moved at a moderate pace, or about two to two and a half miles per hour, cutting on an average, one acre per hour. It will be seen that at this rate, a handsome profit was made for the use of the machine. Any greater rapidity is only accomplished at the severe expense of the team; for two miles an hour including stoppages, and four feet at each passing, which cannot be comfortably exceeded, would make just one acre for each hour.

The hay when cut, being left spread over the whole surface, and not gathered as by the scythe, dried rapidly without the labor of spreading, and was raked by means of a revolver into winrows, and pitched into cocks the same day. With a considerable portion however, the more expeditious course was adopted, of raking the winrows into large heaps, which were pitched at once on the wagon, and drawn into the barn. The raking was all performed by one man and horse, at the rate of about two acres an hour, which is easily accomplished, if ten feet are swept together at each passing, and no delay occurs at the winrow, as in using the revolver. The cost of raking could not exceed twenty cents per acre. The whole eleven acres gave a little over twenty tons of hay. The cost of cutting and raking into winrows, was therefore as follows:

Cutting eleven acres, at 75c. per acre,...............	$8 25
Raking the same, at 20c. per acre,..................	2 20
	$10 45

This is only 52 cents per ton. The subsequent cost of drawing the twenty tons into the barn, was about 14 dollars—making the whole cost of fully securing the crop, less than twenty-five dollars, or at the rate of $1.25 per ton, including every item of expense. On smooth, productive meadows, and with facilities which every good farmer has, and which could not be fully obtained in the instance above mentioned, we think that the cost of securing hay in the stack or barn, need not exceed one dollar per ton on an average.—This shows strikingly the superiority of the use of modern machinery over hand-labor, for which one-half of the crop was formerly considered as required to pay the labor of mowing and securing

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Hogs.—See that you have a good, cool place, with plenty of water for wallowing. If they are in good condition, this is the more needful, because they are more liable to diseases of various kinds during the hot weather.

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* Or more properly Wood's improvement of Manny.

Mathews' Curculio Remedy.

The last number of the Ohio Cultivator contains a communication from A. Fahnestock, of Toledo, on the subject of the remedy for the attacks of the curculio, proposed a few years ago, by James Mathews, and since tested by several cultivators of fruit in different parts of the country.

The author of the communication says, "My faith in the remedy is still as at first, firm and unshaken, although some who have tried it were not successful, and this no doubt is to be attributed to their not having strictly adhered to the directions as given. Mr. J. J. Thomas, on a sandy soil, was not successful."—Again, "Messrs. Williams and Thomas were two of the committee. The latter thinks the remedy will not answer for a light or sandy soil."

This quotation gives a mistaken impression of the results of the experiments made; and on account of repeated inquiries, and various errors in opinion in relation to the remedy, it may be proper to give distinctly the results, without disclosing the nature of the remedy which was imparted confidentially to the different persons who have tried it.

The writer was appointed in 1854, by the New-York State Agricultural Society, a member of a committee of three to make a trial of the remedy, and he was afterwards furnished by A. Fahnestock with a full written description of the process and its rationale, so that it might be minutely and deliberately examined and referred to if necessary. The rationale was distinctly understood, and every part of the proposed process carefully observed. The following were a part of the trees submitted to its operation: A tree each of the Breda and Black apricot, a Boston, Roman, and Elruge nectarine; and a large number of plum trees, mostly the Imperial Gage, Huling's Superb, Primordian, Columbia, Italian and German prunes, Morocco, and some others. The soil was mostly a light gravelly loam (probably the most unfavorable for the success of the remedy), and in a few instances sandy loam. There was not enough clay in it to cause lumps or clods in the ordinary work of cultivation, nor to form cracks in drying, as often occur in a strictly clayey or heavy soil.

The Breda apricot stood in a much frequented place, and small crops had been previously saved by jarring down the insects on sheets and destroying them daily. The remedy was timely applied to this tree, and every particular in the instructions was carefully observed. For a time the results were in the highest degree promising; very few of the fruit were stung for a week or two after the performance of the process, and a heavy crop was expected. But in a short time the insects began to appear in large numbers, and a small portion only of the fruit which at first set and grew so finely, escaped them. It was discovered afterwards that one of the workmen on the place had daily shaken the tree when he began to discover the increased attacks of the curculio.

The tree of the Black apricot stood on ground so situated as to admit a thorough application of the remedy. All previous crops had been destroyed, and not a single fair specimen had ever reached maturity. After the performance of the operation, the fine crop of young apricots were observed to be nearly untouched for a time, but subsequently were all destroyed without exception, before fully grown.

The same result was observed on all the nectarine trees, with which especial pains were taken to apply the remedy faithfully on account of their peculiar liability to attack, and on none of which a single specimen attained half the size at maturity.

Most of the plum trees admitted a satisfactory performance of the process, while with a few it was partially obstructed. The former exhibited a superiority for a time over the latter, in the greater freedom of their young crops from punctures. But like the other trees, they afterwards lost most of their crops, a very few specimens ripening on some of them, more especially on the German Prune and Imperial Gage, trees found more often to escape with their crops than the others.

The preceding statement furnishes the substance of the results of the experiments performed that year. Absence from home prevented a repetition of them the following year. But they could not have been performed in any better or more successful manner than they were the first season, when there was no omission of any portion of the remedy, as has been intimated.

The conclusions at which the writer has arrived from all the experiments, are the following:—

1. The theory on which the remedy is founded is correct, and explains the efficiency of some other remedies previously in use.

2. The operation itself contributes largely for a time, to the exclusion of the insect; but being performed but once in a season, is not sufficiently long in the duration of its effects, to prove of much value alone, where the curculio is most destructive.

3. It is a valuable auxiliary; and in connection with the remedy of jarring on sheets, and the services of swine and poultry, all combined together, would probably save a crop on any kind of soil, and in the worst seasons.

4. In regions or in seasons where the curculio is but moderately destructive, it may, if applied singly, secure heavy crops, as is often done under similar circumstances by the remedy of swine, jarring and paving, where used separately.

5. That for a tree of ordinary average size, or with an extension of branches over a circle twelve feet in diameter, it will require at least half an hour (instead of five to ten minutes, as stated in the communication already alluded to,) to perform the work with "a strict adherence to the directions."

Perhaps it may not be out of place to remark in conclusion, that it seems a matter of regret that so useful an auxiliary should be withheld from the public, instead of being contributed towards the common stock of horticultural information, which we all desire to augment as much as possible, in the promotion of so useful and healthful an occupation as the culture of fruit. J. J. T.

Cleaning Apple Seed, Arbor Vitæ, &c.

Will the editors of the Cultivator please detail answers to the following:

The best process within your knowledge, of cleaning and separating apple seed from pomace.

Also, the method of growing American Arbor Vitæ and other evergreens from seed, after management, &c. In answer to this question sometime ago, I was referred to a back number of the "Country Gent." but had no access to it, so I was obliged to wallow along in *blissful ignorance*.

Also, what is the difference between cherry wine and cherry brandy? How is either made? and can the juice of the cherry be made into wine, &c., without injuring the pit, by expressing the juice, &c.? What is the simplest manner of pressing, &c.?

Also, where can I procure a March number of "The Horticulturist," for 1856, and the Trans. of the N. W. Fruit-Growers' Association. Day. *Morristown, N. J.*

1. After apples are grated to pomace, as in making cider, the seed will fall to the bottom when the pomace is mixed with water. A common way is to use a large wash-tub, breaking the pomace fine, and stirring it with water. The seed settle, and the pomace and water are racked off. A repetition of the process a

few times, will leave good clear seed. A man will thus wash out from a peck to half a bushel of seed in a day. There are several improvements to render the process more rapid. By one, the pomace is broken up fine by passing it *slowly* through a spiked thrashing machine—or by a similar contrivance worked by hand. The washing is greatly assisted by placing a large box within a water-vat or larger box; the inner box has a sieve on the bottom, just large enough to allow the seeds to pass through. Pomace is placed in the inner box, and water turned into the outer and inner. By stirring, the seeds fall through the sieve into the clear water, and when sufficiently accumulated, are taken out.

2. Seeds of the arbor vitæ, being small, must be covered quite shallow (not over half an inch, and if the soil is compact in nature, less so,) with fine, rich mould, which should be sprinkled or sifted evenly over the bed after the seed are dropped. The surface must be kept constantly moist till the plants are up, after which they should be shaded by an awning from the sun's rays. If the soil is rich, and the growth vigorous, they will need no shade the second season. As they increase in size, room must be given to them by transplanting.

3. We have no knowledge of cherry-wine, cherry-brandy, nor how either is made. If the pulp is removed from well ripened fruit, and the pressing performed as an independent process, the pits will not of course be injured; neither would they be if they pass through the simple process of moderate pressure. But if the mass is allowed to ferment around them, the case would be at least a doubtful one.

4. The Transactions of the North Western Fruit Growers' Association can probably be had of M. L. Dunlap, of Leyden, Cook Co., Illinois, President of the Association. The Horticulturist can be had of R. P. Smith, publisher, Philadelphia.

Saving Hen Manure.

One of our agents in one of the western states undertook about planting time, to ascertain how many farmers were in the habit of saving and using the droppings of their poultry houses or hen roosts. He could not hear of a single farmer in his vicinity who had used any of this domestic substitute for an expensive foreign fertilizer, and his astonishment at this neglect and waste of a valuable manure, led him to undertake the more minute inquiries above referred to. After extending his inquiries over the greater portion of two townships, each six miles square, he found only two farmers who had ever made any use of the droppings of their fowls, either in the garden or on the farm, among all the occupants of over thirty sections or square miles of a well settled district. The number of farmers upon whom he called, or of whom he obtained information upon which he could rely, amounted to about one hundred and fifty, which, by the way, shows an average of about five or six farms, large and small, on each section of 640 acres of land.

If similar inquiries were undertaken in various portions of the country, both east and west, we might obtain results which would not only be interesting, but instructive also. We fear that the results obtained would furnish foundation for a charge against farmers generally, of gross neglect and wastefulness in regard to fertilizing matters—the food of plants—which are within the easy reach of all. We fear that it might even be found that while some are expending more or less for fertilizers from abroad, or for fraudulently got up ones at home, they are allowing a great deal of manurial matter to go unappropriated and unused on their own premises.

If curiosty or hope of doing good should induce any of our agents or readers to make inquiries such as we have mentioned, we should be glad to give the results to the public through our columns.

One of the two farmers who were in the habit of collecting and using these droppings of their heneries, stated to our agent that he would not be willing to part with it if any one should offer him $1.00 a bushel for it. He used it for his corn mixed with pulverised muck, and on his garden dissolved in the suds and slops of the house. The other of the two estimated the manure of his poultry at a lower rate, but still at more than half the above. Even at the lowest estimate it is worth several dollars on every farm.

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Good Roads—Macadamizing.

My own inferences, as to what truly constitutes the theory of macadamizing, and so of rendering the roads of the country good and durable, are derived principally from what I have seen and enjoyed in England, or rather in Great Britain; since North Britain, as it is now common to call Scotland, is very like her southern maternal neighbor, south at least of the Grampians, for the excellence of her roads. I have seen several good specimens in our own country; but, alas! they are scarce and exceptional in comparison: "like angels' visits, few and far between;" while so many are like demons' visits, or at least like those of witches on a broomstick, or of hobgoblins on a thunder-cloud, for discomfort and incivism, accusing the progress of our country. England as yet bears the palm; and I fear we are even retrograding—since the introduction of railroads. The latter are all the rage, and all "the age;" and it were not wonderful if other roads recede, as they advance, in the notice and care of the community. But—the inferences—

1. The road proper, or that surface which comes in contact with wheels and heels, is not stones, but soil; loamy and arenacious, or argillaceous soil; adapted and select, tenacious and solidifying, that it may endure; and so, when once done, it may remain done, without patching or scratching every week or two, to keep it in trim, as a model road, worthy of our country.

2. The use of stones in a road is analogous to that of bones in the body; it is to give strength and consistency to the mass. But as in the body, we want the use, without the sight, of the bones; as the bones are not to stick out, or to grow, like those of an oyster, on the outside; so the stones are to underlie the soil, sustaining what pervades and binds them from above; thus holding the parts of the superincumbent mass, in one interfixing and immoving stratification: thus mutually cohering and confirming the total pile, from the bottom to the top, and so making a good road that will not require to be very often repaired or modified.

3. The great enemy of good roads, when made, is—water! and the great art, to provide against its sway. In cold weather, it soon makes ice, which, in the process of congelation, expands; and this with a power that could heave mountains, and easily dislocate all the forms and the monuments of masonry. Hence roads are soon dashed into pi, as the printers say; or into slop and slush, as the teamsters say, if exposed to the flow and the action of too much water. It is bad in summer and in winter, destructive to good roads.

4. Macadamized roads provide against the injury of water, in two ways; first, by the due convexity of the surface of the road, that sheds it so finely on either hand; larboard and starboard, to use a sea phrase, into a channel or drain prepared for it, thence taking it off, innoxious, to some secure receptacle beyond: and second, by the structure of the whole, absorbing so cleverly what is not shed from the surface, and which

sinks without damage, through the stones, into the native earth, at the bottom.

These four rules, though probably expressed not in the best way, are, I think, the cardinal ones of the system, or plan, or theory, call it as you like, of macadamizing. Its rules subordinate are indeed many. In fixing the convexity of the surface, for example, we must say—*ne quid nimis;* not too much of it! Beware of extremes. If it be too convex, it will shed rain all the better, like the steep roof of a house—only it will shed carriages too, by making them rickety or perilous, or by upsetting them! A steep roof of a house is not a good symbol of the surface of a good road. Indeed, it were better flat, perfectly level, were it not for that enemy—water! Hence, just enough to shed the water well is the rule.

Instead of this, what violations of the rule do we meet, frequently, in our vernacular macadamizing! Surfaces flat, often concave, with little lakes and gullies in the centre, where boys may fish for gudgeons; and where porcine pedestrians may regale their squalid weariness, with the exquisite luxury of *wallowing in the mire.* Hence our roads sometimes become quite porous, continent of all the soft and mushy forms of matter; where wheels dive deep to find any road at all; and where sometimes a coach of aldermen, on an excursion at the expense of the city, driving merrily in its environs, are suddenly plunged, and find themselves softly anchored, and "striving in the business" of reforms of roads, for the first time of their official term! The only cure of such roads, in ordinary, is not the common council, but—Jack Frost. When all froze hard, they are sometimes quite tolerable, and the lazy folks around enjoy the wheeling that comes so cheaply, without taxation, and is the best macadamizing their roads can get or their scientific pates ever consider.

It is a great proof of inconsideration, truly, when, as we often see, roads are nearly made, sometimes at great expense too, and the first rain discovers cavity and concavity, here and there along its entire line; which are so much better, or worse, than "broken cisterns that can hold no water." They hold it. To fix its surface so as to shed it, they never thought, or never planned to do. Soon those amateur scavengers, the migratory hogs of our farmers, fond of bathing, find the prepared cavities, occupy and enlarge them, and multiply and increase them, till the road becomes like a body full of ulcers, insufferable. Then, after a while, they begin to consider of the mud, and the misery, and now—look out for macadamizing! The nuisance must be abated. Oxen, and wheels, and all hands, go to the shore of the brook, and cart stones, some pebbles, some cobbles, some big as the head of the booby that brought them; all are dumped into the hole together. The big ones, by some law of the operation, are found on top. If the whole is leveled down at all, the big ones are left—as signs of their finished art; instead of all being dashed in first, and sunk to the bottom, and so in order, the smallest on the surface. As it is, and even if it were better, the soil has to get these as it can; by accumulations of dust, by deposits of mud from the wheels, and by the soaking virtues of continuous rains. Then at last the soil is the road, the big young rocks roll on the surface; and not a boy or a man in a thousand has the humanity to roll away the stumbling-block, and so do a service to his neighbors and the commonwealth. Rusticus.

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If you wish to keep your sons on the farm, you must put more intellect into your farming. A bright boy wants food for the mind, as well as work for the body. Mere routine will not satisfy him. He will be willing to work when mind directs the hand. Otherwise, you cannot keep him at home. He will be off, ere you are aware. Therefore, read and think, and work out your reading and thinking on your farm. Your boys will stay with you then.

Farming on the Prairies.

Messrs. Editors—Being an old subscriber of your paper, and having received many valuable suggestions therefrom, while farming in old Columbia, of your own state—now that I have "transplanted" myself to the fertile prairies of Illinois, I purpose to reciprocate some of the favors received, by sending you occasional notes on Illinois farming.

The generality of eastern farmers have but a faint idea of the magnitude of farming at the west, of the fertility of the soil, and of the facility with which the naked prairie is brought under cultivation, and made to smile with almost boundless fields of wheat and corn. If the hard-working and industrious man at the east could realize the great improvement in their condition that would be brought about, if they would settle themselves at once upon a prairie farm, there would be a greater "stampede" for the west than has ever yet been known. For the benefit of such men, I will give you some account of what I know from a short experience, can be done upon the prairies.

I think there has never been a better time for western emigration than now, and though the rapid rise in the price of land, and the magical growth of our cities may seem unaccountable to many, I think the solution very simple—it is owing mainly to the Railroads that are shooting across the prairies in every direction.

We have the most beautiful land in the world. Thousands upon thousands of acres of magnificent rolling prairie, fertile beyond the conception of any one who has not seen them, and without a stump or stone to impede the progress of the plow—all of which was of but little account so long as we had no means of getting our produce to a market, and on that account comparatively valueless; but now that railroads have been built, every man has a market at his door, and a few days only are required to transport our wheat and corn, beef and pork, to their eastern consumers, while the increased product of our lands, and the cheapness with which they can be worked, enables us to compete successfully with eastern farmers in eastern markets. As a natural consequence of all this, these prairies are filling up with a rapidity that is quite in keeping with the fast age in which we live. They seem indeed to have been reserved by providence for the use of a fast people, who could not afford to spend a lifetime chopping trees and digging stumps and stones, as did our worthy ancestors of the Atlantic States.

The best time to commence a prairie farm is in the Spring. The first thing to be done is to fence it, and to build. Fencing here is mostly done either with posts and boards or wire. By the laws of the State hogs and sheep are not allowed to run at large, so that we only have the cattle to fence against, and as a matter of economy only two or three boards are used to a length at first. He is now ready to commence his plowing, which experience proves should not be done till the first of May. The best plows in use are heavy ox plows with steel shire and mould-board, cutting a furrow 20 inches wide, and requiring a team of 3 or 4 yoke of oxen to the plow. These plows are fastened at the forward end of the beam on to trucks, so that they hold themselves, and any boy that can drive oxen can manage the whole concern.

Mr. Holden, of the agricultural ware-rooms at Bloomington, has got up a corn-planter that is attached to these prairie plows, and drops the corn along the landside of the furrow, so that the next furrow covers it, and the corn comes up between them.

This is what is called sod-corn at the west, and in an ordinary season, without any cultivation whatever, yields from 20 to 40 bushels to the acre.

This is usually stouted early in the fall, and wheat dragged in between the stouts. After the planting season is over, the plows are kept running till July, and the land sowed to wheat in September. It is the work of one man and team like this, to plow and sow from one hundred to one hundred and thirty acres to wheat, the yield of which is from 20 to 40 bushels to the acre.

The great beauty of farming here, is that you have nothing to do but to put in your crops and take them off—no picking off stone, grubbing bushes, and digging stumps. Our land admits of the use of all the modern improvements in farm machinery. We can raise one hundred bushels of corn to the acre, easier than 50 can be grown at the east. We are putting out hedges by the mile, for 40 cents a rod—which, in a few years, will give our country a most beautiful appearance. Trees grow with the greatest luxuriance and rapidity, and with the exercise of a little taste and care, Central Illinois will soon be known abroad, as it is in fact as one of the finest and most beautiful regions of the north-west. S. W. Sutherland. *Bloomington, Ill.*

The Ohio Farming and Stock Breeding Company.

Editors Country Gentleman—Your polite note of 15th inst., asking for a statement of the plan upon which our company proposes to prosecute our business in the west—what we have done and propose to do, is received. Though somewhat of a delicate duty to perform, involving propositions that we do not desire to force upon any one, I will, as briefly as possible, give the desired information. Believing that a union of means, talent and influence, would operate as well in furthering an agricultural enterprise, as in that of manufactures, or of commerce, about a year since the undersigned, after weighing the matter for a twelvemonth, proposed the enterprise now being perfected, to two or three leading agricultural friends, who at once entered into the project with energy.

The plan proposed, was to form a joint stock or partnership company, with a cash capital to start with of $20,000, to be increased if necessary, putting a portion of this into five or six thousand acres of land at $1.25 per acre, holding the remainder for the purchase of of breeding stock, and for improvements by building, fencing, &c.

Iowa seemed to be the point for selecting the land, and having many misgivings in regard to the climate, grasses, &c., the undersigned, about the middle of October last, took the cars for Dubuque, there employing a team and surveyor. Rigged with a covered spring wagon, with sundry robes, blankets, crackers, cheese, and dried beef, we started out prepared for camping.

We found the roads in capital order, and had no difficulty in making 50 miles a day.

This trip was made as much with a view to carefully scrutinizing the condition and thrift of the live stock of the country, as to seeking land. Had the climate, wild grasses and soil, not promised well for cattle and horse stock, the enterprise would have been at once abandoned. For, notwithstanding we counted largely upon the land as a source of profit, we were not in quest of a *land* speculation.

After a careful examination of the cattle, sheep, and horse stock of the country, we became satisfied that no State could excell Iowa for healthiness of climate, and that no grasses were equal to the wild prairie grasses, for affording *growth* and *flesh* to farm stock. The scrub cattle of the country, were fatter than we see them in Ohio, and we saw several cows "in milk," that were in good beef order.

At "Coffin's Grove," 52 miles west of Dubuque, we met with a settler of sixteen years standing (Mr. Coffin emigrated from Massachusetts.) Mr. Coffin informed me that he had had excellent success with his stock, taking his steers through the winter on prairie hay, selling them in March to the butchers of Dubuque, then in fair beef order. Eight three-year-old steers, grazing near his house, were good evidences in favor of the climate and grass. Mr. Coffin stated that aged and diseased sheep, driven in from Ohio, Indiana and Illinois, recovered their health, and in a year, seemed to increase in size one-third—(we have had the same testimony from several others since, and have not once heard the statement contradicted.)

It is also strictly orthodox in Iowa, to teach that horses do not get the heaves in that State, but that such as are driven there, affected by that disease, are speedily cured. This may be attributed in part to the steadiness of the climate, and the absence of rains in winter—but in a greater measure, we think, to the entire absence of dust in the wild hay of the country. (It is said that this hay is now shipped east, in bales, for fitting horses for the turf. Being very clean and nutritious, running horses are said to be sustained in the heat, better than by tame hay.)

Having become satisfied that good stock could be safely taken into the country, we proceeded in search of a suitable tract of land upon which to build up a breeding establishment. We had fixed our mind's eye upon a grove upon high ground, surrounded by rich prairie, and far enough from any principal stream to avoid liability to miasmatic diseases. (This is the scourge of both man and beast, in most of the Western States. No animal can grow thriftily, stand exposure to cold, or take on flesh kindly, and be fit for human food, with a diseased liver. We leave the butchers to testify as to the proportion of the healthy livers in grown up cattle, sheep, and swine. A close observation during some fourteen years, at the bedside, in western districts, has taught us that if any one organ of the body is more frequently affected by derangement, or organic disease, than another, it is the liver.)

Such groves are very rare, the timber being almost exclusively on the streams, consequently on lower ground generally, than is desirable for a habitation, even if these locations were as healthy as any. With the plats of eight townships in our pocket, containing a large amount of vacant land in several different counties, we proceeded with the search, and in Butler county, about 125 miles due west from Dubuque, some three or four miles north of the proposed route of the Dubuque and Pacific railroad (this road is now under construction; 40 miles will probably be in use in November next, and the whole distance to Butler county in eighteen months), and about 25 miles west and four miles north of Cedar Falls, we found a tract of land which in every particular realized our utmost wish. A grove of some 200 acres, situated on high rolling ground, from the base of which issue numerous living springs, surrounded by every variety of prairie that may be needed, affording meadow, corn, and every variety of pasture land. Watered, besides springs, south of the grove by a living spring stream, in many places having a rapid current, and affording a depth of some 20 inches, and a breadth of six to eight feet. Small spring streams put into this, from either side, furnishing ample water for stock, in any locality that it may be desirable to enclose pastures. Parallel with this stream, and north of the grove, is another, fed by several strong living springs, affording about twelve inches in depth of water, by five feet wide. These two streams run from the west to the east border of our land, a distance of some three miles. The land is amply supplied with stone in quarries, some four or five of which crop out upon the surface. The grove is densely covered with oak, crab-apple, and wild plum, yielding a supply of wild fruit for the whole country around.

The grove furnishes every desired facility for protecting stock in the winter, and in the outskirts shade in the summer. Our stables will be built deep within the grove, beyond the reach of wind. With a plat of some 8,000 acres of land, hastily made out in the rude pole shanty which furnished our camping place for two days and a night, in a heavy October rain—we took our bearings for Dubuque, arriving there in two and a half days—and 30 hours by railroad brought us home.

The getting of the required amount and quality of land being now deemed practicable, the following gentlemen united with me in furnishing the means, and about 8,000 acres were entered at government price. (All timber at that time was taken up for speculation and we have purchased the grove at $2 50 to $5 50 per acre.) R. W. Musgrave, (Ex-President and now a member of the State Board of Ag. of Ohio,) of Crawford county; Jno. H. Green, (also a member of the Board of Ag., and its Rec. Sec.) of Hamilton county; Peter Melendy, (for several years a breeder of fine stock in Ohio,) of Hamilton county; James McGrew, (of the firm of McGrew, Lees & Co., hedge growers,) of Montgomery county, (now of Kankakee city, Ill.,) together with Luther A. Hall, A. C. Baldwin, and Jno. Pride, of Seneca county.

The land being secured, we proceeded to organize by the election of R. W. Musgrave, Prest., Jno. R. Green, Treasurer, and the undersigned Superintendent and Secretary, with the understanding that the superintendent only shall reside upon the land, the several stockholders co-operating with him without changing their residence or present business operations.

Mr. Melendy has since purchased a farm of eleven hundred acres, twelve miles east of the company farm, to which he proposes to remove next spring.

We have set apart nearly 5,000 acres for the main farm, deeming that amply sufficient, and have deeded over to the partners in their individual right, the remainder. Much of this will be improved—and the plow has already disturbed a portion of it.

We have adopted an article of copartnership for a period of ten years, renewable at pleasure, during which the operations of the company cannot be interrupted by death of a member or members, except it be the local manager—nor can any member transfer his stock, without the consent of all the parties. It is not expected that a dollar will be paid as dividends under five years, all the income, if any, being used in making improvements and purchasing breeding stock. We base our operations on the proposition, that if it pays to raise one colt a year without system in breeding, feeding, training or marketing—it will pay to raise 100 annually, if bred right, and fed, trained and marketed as no small farmer could be made to believe he could afford to do.

So far as our *horse* stock is concerned, we think that by being a little difficult to please, in the selection of our brood mares (getting such as bear the imprint of well bred stock, securing so much of a pedigree as we can), taking those only that have good size, good forms, action, carriage, and if a little speedy we do not object, as this is verily a *fast* age. We buy no bad steppers. We sometimes take an *old* mare in preference to the majority of young ones, as it does not require very close observation to see that for several years past our horse stock has sadly lost "caste." When you find a bony head, ornamented with a large eye and a clean ear, coupled with a fine elevated neck, a good breast, a slanting shoulder, a good loin, a fine rump, a good tail well set on, a deep quarter, and with limbs and mettle to match, you will generally find the possessor to be in her "teens," or in close proximity thereto. With the hope of securing one or two mare colts from such a mare, we gladly take them, and hope thus to secure the foundation of a good breeding stock.

Breeding 40 or 50 mares at the outset (and a larger number, when, by the growth of the young stock, we are enabled to select the best females as breeders), to one male from year to year, we expect of course considerable *uniformity* in the produce, enabling us to accurately match a large portion of our young stock, in color, size, action and gait. We expect further, to know the *value* of each animal before parting with him. A small difference in price on each animal, where a number are to be marketed, will warrant a thorough development of all the good qualities of each. Farmers rarely learn the value of their young horse stock, until the expert horseman has brought out their latent powers, and what was in the team or pasture, apparently a drone, is selected by a cultivated eye, as promising a good speculation. The *profit*, in such a case, is made in a month by a dealer, and not by the farmer who has furnished the feed and watched the growth for four or five years.

The foregoing remarks will answer your inquiry in part, as to what we propose to take next. As to a male animal for breeding, we are yet to be supplied, and should this meet the eyes of horsemen who think they comprehend what description of animal we want, and can designate such an one, we will make any reasonable journey to see him. A well bred horse, from as distinguished a family as may be, of eleven or eleven hundred and fifty pounds' weight, largely imbued with vigor, energy and style, with a good disposition and color, not leggy, and withal no drone upon the road.

We have seventeen brood mares already on hand, ten of which were bought in foal. Four of these are now rearing very promising colts from Morgan trotting stallions—one from a Bell-founder—the others from a variety of sires. We are breeding this year to the Black Hawk horses, "Champion," "Flying Cloud," and 'Telegraph"—and the Gifford horse "Plow Boy." In cattle stock we have thus far confined ourselves to the Short-horns, having already some seventeen females on hand. In making up a herd of thirty or forty females, we of course desire that the male should be an animal of promise, and will aim to secure such a one, depending upon making an importation in a year or two if deemed best.

Of smaller stock we will probably keep a few fine sheep and swine, though but few at the outset.

We have already commenced improvements upon the land, by hiring the breaking of 100 acres at $3 50 per acre. Upon this 100 acres we will next year grow corn and oats for the next winter's feed—each spring breaking additional ground, putting that first cropped into blue grass and timothy, for early and late pastures. (The wild grass of the country is tender and is kept back by cold in the spring, and cut off by early frosts in the fall.)

Our supply of teams will enable us to subdue the land rapidly, and more than keep pace with the increasing stock.

There are now being made upon the land, 200,000 brick, for which we pay $4 per thousand, furnishing the fuel only.

We propose to use 100,000 of these next year, supplying the demand already made upon us with the remainder.

Our brood mares and colts will be moved before foaling time, and quartered in the grove until the grass puts out. To meet the early demand for feed, in part, we have directed the cutting and putting up of hay, on our own land, at a cost of $1 50 per ton, 3 tons of which can be cut from an acre. In answer to one of your inquiries, I will say, that the undersigned proposes to go west in March, or first of April next, and at the earliest possible moment the erection of necessary buildings will be made.

Our cattle stock will not be moved until the grass upon the prairies is forward. They will then be carried to the Prairie country in western Indiana, and from there carefully driven over the Prairies, in charge of an experienced herdsman, the remainder of the distance. Ample time will be consumed in the removal, and a wagon kept in company for camping, when necessary, and for the transportation, for the time being, of such increase as may be dropped by the wayside.

The members of the company will, agreeably to the articles of co-partnership, meet upon the farm on the first Monday of October, annually. At either of these meetings, or at any other time, we will be glad to welcome either of the editors of the *Country Gentle-*

man, or any of its numerous readers, as it will be a standing rule with us to keep the latch-string out.

Of such as have doubts about such an enterprise as this working well, we would ask,—Will it not be far more easily managed,—each stockholder being familiar with its utmost workings and details, than an unwieldy manufacturing establishment, or transportation company, with the operations of which, the stockholders are not generally expected to be familiar,—with heavy liabilities from fire, vicissitudes of trade, and money panics? If stock can be profitable grown upon pastures worth $50 an acre, and wintered upon grain and hay produced upon land of similar cost, can we not grow it more profitably upon land which has cost only $1.25. In one case, $100 is invested in two acres of land, these two acres being required to sustain an animal for the year. In the other case, $2.50 is invested to secure the same sustenance, the labor in each being supposed to be similar. If farming and rearing stock is at all desirable as a business pursuit, we are at a loss to see wherein we will fail to be benefited by the same favorable influences that aid farmers generally as a class.

We need have no fear from a large accumulation of stock, as our land will not be easily overstocked, and in times of depression, in place of forcing sales to obtain relief for land and purse, we will continue to breed with a steady hand, with a firm belief in the saying, that it is "a long road that has no turn."

With a few words in regard to our system of book-keeping, I will close this already too lengthy article. We have had prepared two large books, of 600 pages each, in ledger style, one of which we denominate a "stock register." The first 300 pages is devoted to horse, and the last 300 to cattle stock. We record and open an account with every breeding animal,—charging the animal with amount of purchase, keeping, handling, &c.,—upon the opposite page recording the pedigree, and giving credit for all produce sold, or the value thereof, if transferred to another page and retained for breeding. In case of such transfer, a similar account will be opened with the produce, charging it with the sum for which its dam was credited. The other book is for "records and accounts," in which is recorded our articles of association, duly executed, together with other necessary records, from time to time, and the account with the stock farm, and of the members of the company. In the farm accounts we charge for moneys invested in the land, and improvements from time to time, and for each breeding animal, or implement placed upon the land,—together with all expenditures whatever,—giving the farm credit for pasturage, crops and stock sold or consumed,—and eventually, in closing up the affairs of the company, with the worth of the land, stock, and improvements at the time of such settlement. G. Sprague. *State Ag. Rooms, Columbus, Aug.* 19, 1856.

A Barometer, a Useful Investment for a Farmer.

The operations on a farm are so much dependent upon the state of the weather, prospective as well as present, that the ability to foretell, or guess pretty correctly, what it is to be, is one of the most useful qualifications which a farmer can attain. Some have attained to an ability of this kind which is not a little surprising, as they are able to foretell the state of the weather for twelve or twenty-four hours with great accuracy, mistakes happening in their weather-prophecies but very rarely. This ability is not of very frequent occurrence however, the most of men being liable to make wrong guesses and false prophecies. A little familiarity with the indications of a barometer would, however, enable almost every one to guess very correctly at the state of the weather for twelve or twenty-four hours in advance. Of how great use such an ability would be, especially in the season of drawing in hay and grain, every one can easily form some conception. Cases have come to our knowledge in which the indications of the barometer led to the hurried drawing in of hay and grain which would have been deluged with rain, had they not been secured just when they were. It must be evident that the saving effected in a *few* such cases, in which the indications of this useful instrument have led to the avoidance of considerable damage to crops of hay, grain, &c., would be sufficient to pay a large percentage on its cost, or might amount to more than its original cost. We deem it our *duty*, therefore, to our readers, to recommend an investment which is sure to prove profitable, as well as a source of much satisfaction independently of all regard to direct pecuniary profit.

If the considerations now presented should not be sufficient to induce our readers, or many of them, to procure a barometer, they might be more thoroughly persuaded of the propriety of so doing by consulting the observations on this subject to be found in Stephens' Book of the Farm.

The cost of a barometer is from $4.00 in plain style, to higher prices, according to the style and finish of the cases. It would be well if a card or pamphlet giving directions in regard to its use, were always to accompany the instrument. Some months ago we observed that a Mr. Woodruff, of Ann Arbor, Mich., gave notice that he furnished barometers in plain style at $4.00, with a printed card of directions explaining its indications and uses. At such a price, or at any price, a barometer will yield much more than ten per cent. on the money invested in it. A.

Draining and Reclaiming Swamps.

The following detail of operations in converting a worse than useless swamp into a most fertile piece of land, was furnished to the N. Y. State Ag. Society, by Wm. Johnson, of Elmwood Farm, near Geneva, and will appear in its forth-coming vol. of Transactious.

B. P. Johnson, Esq., Secretary:—I have on my farm about eighteen acres of flat, low land, being a sort of a basin for the deposit of the water running from a large tract of surrounding lands. The soil is a kind of vegetable mold interspersed with clay, with a clay subsoil. Ten years ago I purchased the farm on which I now reside. At that time this piece was overgrown with small trees, bushes, willows, bog-grass, &c., presenting a most unsightly appearance, and was considered almost a nuisance; in fact it was known and pointed out as *the swamp*. The spring after I came in possession of it I cut down all the trees and bushes, burned them, together with a large quantity of old logs, tree tops, &c., then dug an open ditch two and a half feet deep through the lowest part of it, which carried off a conisderable portion of the *surface* water, and was really a great improvement, but was not what the land required, (nor what I intended to do as soon as more pressing improvements were disposed of,) it being a rough uneven piece, full of holes, with a close tenacious subsoil, the water standing in the low places a considerable portion of the year, and of course too wet to be tilled with any success. Last spring I commenced the work of underdraining it in earnest, by cutting a ditch along the east and lowest side of the lot for a *main drain*, thirty inches deep, to be laid with six inch tile. I then commenced on the north and lowest end of the lot with the cross drains, making them about thirty-two feet apart, (varying them a little according to the situation of the surface,) nearly at right angles with and entering into the main drain.

Now for the *result*—as the drains progressed the water began to disappear from the surface, and within about one week after the drains were dug, the water *entirely* disappeared from the *lowest places*. The effect was striking and remarkable to every one who witnessed it. That portion through which the drains had been cut being entirely dry, whilst the other portion immediately adjoining, was literally soaked in water, and as fast as the drains progressed the water would as rapidly disappear. The experiment has proved *entirely* satisfactory, and I have already plowed about one-third of the lot, and intend to plant the whole of it to *corn* next spring; in fact I expect after it shall have been thoroughly tilled it will be one of the *driest* lots on the farm, and if the season proves favorable, I have no doubt that the corn crop will tell well next year.

The actual amount expended in draining the nine acres described above, is $234.20, showing the whole expense to be about $26 per acre, the items of which are given below:

To digging 630 rods of drain, at 12c,...............	$75 60
do 42 rods main drain, at 14c...............	5 88
To 588 six inch tile, at $18 per 1.000.	10 50
1.680 two inch pipe tile, at $12 50 per 1,000,....	21 00
7,560 one and a half inch pipe tile, $9 per 1.000,	68 04
To drawing 588 six inch tile, ...	2 00
do 1,680 two inch pipe tile,...............	2 50
do 7.560 one and a half inch pipe tile, ...	11 00
To 400 feet of lumber for bottom of main drain....	4 00
levelling bottom and laying tile, 672 rods at 2c. per rod, ...	13 44
filling same, 3c. per rod,......................	20 16
	$234 20

The cost per rod of the different sized drains, with tho *items*, are given below—the difference in the cost being chiefly the difference between the price of *large* or *small* tile, viz:

Five hundred and eighty-eight six inch tile,........	$10 58
Digging forty-two rods, 14c. per rod,.......... . .	5 88
Laying and filling same,.........................	2 10
Drawing tile, ...	2 00
Lumber for bottom, ...	4 00
Total expense, (or 58½ cts. per rod.)	$24 56

Two inch Tile.

One thousand six hundred and eighty 2 inch tile, at $12.50 per thousand,............................	$21 00
Digging 120 rods at 12c.,..........................	14 40
Laying and covering tile, 5c., ...	6 00
Drawing tile, $2.50, ...	2 50
Total, (or 36½ c per rod,).........................	$43 90

One and a half inch Tile.

Seven thousand five hundred and sixty 1½ inch tile at $9 per thousand, ...	$68 04
Digging 510 rods, at $12c., ...	61 20
Laying and covering same,.........................	25 50
Drawing tile,.................................. .	11 00
Total, (or about 32½c. per rod,)	$165 74

Thus I have given a correct history of the above, hoping that it may be the means of inducing my brother farmers to improve some of the waste places on their farms which are now entirely worthless. and when thus improved are the most valuable part of their farms, and would by thus doing add many valuable acres to their farms.

I have endeavored to give the *facts* distinctly, and in such form that I hope you will be able to understand them. William Johnson.

Importance of Good Tools.

Messrs. Editors—I wish to say a few words on the importance of having my brother farmers use good tools. It is perfect folly for any person to continue to use a tool after it is so worn as to be wholly unfit to work with, yet farmers as a class, merit more censure in that respect than any other class of laborers, and it would seem as if there could be no excuse for any one that persists in such a course, while we have an abundance of the best of all kinds of tools, adapted to every kind of farm work. I have been prompted to say a few words on this subject, in consequence of having seen a wealthy farmer who has a large farm, and money at interest, and living within two miles of the city of New-Haven, mending up his old crotch harrow and putting in new wooden teeth where the old ones had rotted off. I have seen men continue to use old fashioned and worn out tools for fear, as they say, that they are going to be humbugged with something that is made to sell.

Now then, the men that make agricultural tools, are welcome to humbug me in the shape of selling me a Geddes harrow, instead of using one with wooden teeth, or selling me a new hoe, or shovel, or fork in preference to using old and worn-out ones. I would have every farmer make as many of his own farm fixtures as practicable, and when he gets new ones don't spoil the purchase by withholding an extra shilling or dollar, for one good tool is worth a dozen poor ones.

Have a place for your tools, and see, when they are brought in from the field, that they are clean from dirt and kept bright, for every one knows that has tried it, that it is poor business to use old rusty shovels and hoes. I have heard many a one say they should purchase better tools were it not for fear their help would break them the first time they use them. So they will buy some cheap and inferior article, expecting to have it broken, and they are rarely disappointed. I have found by experience, that it is altogether cheaper to furnish help with good tools. My help do more work, besides they take a pride in keeping them in good order.

Perhaps I have said more than was called for on this subject, but I would have those engaged in agriculture alive to the improvements of the age, and have them show to the world that our calling is one of the noblest occupations that engage the attention of man. L. A. Brown. *West Haven, Ct.*

A New Washing Machine.

Messrs. Editors—As I am housed by the rain, I will reply to an article in your issue of the 5th of June, relative to washing clothes; not in proposing a *new* theory, but by informing your correspondent of a *new* machine for applying the best of all chemicals, "soap and water," to clothes washing. I refer to Clement & Willie's washer, patented a few months since. This machine does its work well, quickly and easily; and is simple, durable, and cheap—costing not more than the one you describe. I have used it, and do not hesitate to recommend it highly. My neighbors, who have used it, and also one like that recommended in the Country Gentleman, very much prefer Clement & Willie's.

The machine is an oblong square tub, with a concave, *stationary* rub board (not chafe board), and a convex *vibrating* rubber just fitting the concave. By placing an end or corner of the piece to be washed between the stationary and vibrating rubbers, it is drawn through between them, by the working of the machine, in the most natural, easy and expeditious manner imaginable. A newspaper can be washed several times without being torn. B. Frank. Stevens. *Barnet, Vt.*

Gapes in Chickens.

A Ohio correspondent gives the following remedy: "Feed little or none on corn-dough—but feed plentifully on cheese made of lobbed milk or clabber, crums of wheat and corn-bread. We also keep clabber in a trough always within reach of the young chickens. This we believe has been a perfect remedy in our hands for gapes, for the past seventeen years."

Bones as a Manure.

Messrs. Editors—So much has been published within the past few years on bones, phosphates, and super-phosphates, that it would seem the subject had become threadbare, and that nothing new could be written, and that every farmer was fully apprized of their manurial value. But one need not take a very extensive ramble among our farmers, to ascertain the fact, that but very few of them either save or collect what old bones are readily within their reach, or that might be cheaply purchased in many country towns at the slaughter-houses, tanneries, and soap-boilers; and some, who are aware of their value as manure, neglect them from their indestructible nature, when used in their natural state, and the difficulty of disintegrating or dissolving them, so as to realize any immediate benefit from their application to their crops. The more finely bone manure is comminuted, the more speedy its action; but when only coarsely broken by the sledge, or other heavy hammer, and the land heavily dressed with the broken bones—at the rate of 150 bushels per acre—I have found them a most efficient and durable dressing for the land—in durability exceeding any other material used.

From geological discoveries in different portions of the world, and more recent discoveries in the territory of Nebraska, it would seem that bones are more lasting and indestructible in their nature or composition, when long exposed to the action of moisture, atmospherical or other decomposing agencies, than any other organized structures, whether animal or vegetable.

In the territory of Nebraska there is an extensive district, some thirty miles wide and about ninety in length, in which there is strewn, in the greatest profusion, organic relics of extinct and remarkable races of animals that once roamed over Nebraska, in bygone ages, long prior to the existence of the mammoth or mastodon.

But it is not the object here to describe the forms, sizes, or peculiarities of these extinct races of animals, differing as they do from any previously discovered fossil remains, or of living species of animals; but rather to say something of the present condition of these bones that have so long been exposed to all the changing seasons for thousands upon thousands of years. And yet these dry bones of *old*, says Dr. Owen, "are still in such a perfect condition, and present so fresh an appearance, that the light is reflected back from the enameled surface of the teeth with as much brilliancy as from highly polished steel. Were it not for their ponderous character, and their strange physiognomy, one might well suppose them to be the bones of recent animals, which had been bleached for a season."

From well established data, geologists say that at the time these extinct animals swarmed in such vast numbers in Nebraska, the configuration of our continent was very different from what it now is. Europe and Asia were then in fact, no continents at all, being only represented by a few islands scattered over a wide expanse of ocean. The Atlantic seaboard of the United States, back to the mountain ranges, and up the valley of the Mississippi as high as Vicksburg, was yet under water. Says Dr. Owen (from the data referred to,) "the geologist is able to prove, as satisfactorily as can be a mathematical problem, that at the time these fossil mammalia of Nebraska lived, the ocean ebbed and flowed over Switzerland, including the present site of the Alps, whose highest summits then only reached above its surface, constituting a small archipelago of a few distant islands in the great expanse of the Tertiary sea."

If the above statements are reliable facts, and doubtless they are, who can enumerate the days and months that have elapsed since these skeletons were clothed in flesh? Estimating the time by years, the numbers would be immeasurably great, utterly beyond the grasp of the human mind—and yet the enamel of the teeth is as perfect as when alive, and most of the bones are in a relatively good state of preservation. A nearly entire skeleton of one was discovered, which measured, as it lay imbedded, eighteen feet in length, and nine feet in height.

The American continent, from Bherring's Straits north, through all the intermediate countries to Southern Patagonia, was once inhabited with huge but now extinct animals, monstrous in size, for the largest of the present races of our animals are but pigmies compared with them. The greater number, if not all these extinct quadrupeds, lived at a late period of the "world's history," and long after the unique animals of Nebraska had ceased *to be*. For since the mammoth and mastodon lived, no very great change in the form of the land can have taken place. And it further appears from the character of the fossil remains in Europe, Asia, Australia, and in North and South America, that those *conditions* which favor the life of the larger quadrupeds, were lately, *geologically speaking*, co-extensive with the world. What those conditions were, no one can tell; though, doubtless, one of them was a much warmer and more equable temperature than we now have.

In North America we know they lived subsequently to the bolder or drift epoch—and yet they might have *lived* and *died* before man was *created*. At any rate, they had ceased to live long before this country was settled by Europeans, as at that time the Indians had no reliable tradition concerning them. Many of the bones of these extinct animals are remarkably fresh in their appearance; yet, however recent they may appear to the eye, these bones have, in fact, lain for more than two hundred years in the situations where they have been found, some on the surface of the ground, others beneath it, and in ponds of water; and if they could remain so slightly changed for that period, we do not see why they may not so have continued for ten, twenty, thirty, or more centuries. The bones of the mammoth, as found, are in their natural state—not mineralized.

A few years since I spent several days in Boston. While I was there, Dr. C. T. Jackson extracted from one of these ancient bones (by pulverizing and boiling,) nearly a wine-glass full of glue, apparently as strong and fresh as if it had been extracted from the bone of an ox just slaughtered.

A portion of the soil in an arable district of Sweden, which, from time immemorial, had grown excellent crops of wheat without manure, was found by the chemist, Berzelius, to contain minute fragments of bones, capable upon boiling with water, of yielding a weak solution of gelatine (glue.) It was concluded, therefore, that the spot had been an ancient battle-field, and its prolonged fertility was due to the bones of old time buried in it, and still to some extent undecomposed. As there was no tradition or history of the battle, undoubtedly it was fought long before that of Bannock-Burn, or Flodden Field—perhaps contemporary with that of Thermopylae, and yet the gelatine of the bone undecomposed, although the land has been annually cropped with wheat from time immemorial.

In the *Rural N. Yorker* of Feb. 24, 1855, there is published an article on the "Lasting Effect of Bones;" the writer says:—

"We know of a field in an adjoining county that has been cropped for thirty years, and is now in a high state of fertility. The surrounding fields are nothing like it, and with similar cultivation would by this time have been utterly impoverished. The former is the site of an old Indian burying ground, and when the country was first settled, was indented with graves within six feet of each other, all over its surface. The dead were buried in a sitting posture, not over two feet below the surface, and the writer, when a boy, filled his pockets many a time with beads and arrow-heads, turned up by the desecrating plowshare. The half decayed bones of the aborigines are this day to be seen mingled with the soil, and, sad as it may seem, furnish food to successive crops of grain and grass. If the soil at any time gave signs of impoverishment, the occupant merely ran the plowshare a few inches deeper, and *turned up a few more Indians!* The melancholy truth cannot be gainsayed, that the ashes of a former race of men are to this day enriching many of our fields, and the fact is thereby established, that animal remains, and especially bones, are of lasting benefit as an element of fertility."

Within the past twenty years I have experimented much with bones for manure; but have found much difficulty in reducing them to a fine state, so as to render them more immediately available. Some years ago I boiled a few bushels in a strong lye of sulphate of potash. Two hours boiling would reduce horn-piths to a pulp. Large solid bones required boiling an hour or two longer. In boiling in sulphate of potash, I think there was not so much loss of the ammonia, as it probably was fixed by the sulphuric acid, forming sulphate of ammonia. Afterwards I boiled a quantity of bones in strong caustic lye. This process drove off the ammonia, filling the house from cellar to garret with an odor of ammonia, as powerful as that of the hold of a guano ship. As far as the organic portion of the bones was concerned (in this process) they might about as well have been burned.

Several years ago I burned a cartload of horn-piths and other bones. After being burned they were easily pulverized. A few days before using them, they were mixed with damp unleached ashes. By the process of burning, probably, I suffered a loss of one-half the manurial value of the bones.

A year ago last spring I purchased at a tannery, three large cart loads of horn-piths (for which I paid $5.) About half a cart load of the piths were cut and broken with an axe. They were boiled in water for an hour or two, and then composted—first, a layer of swamp-muck, then a layer of "boiling hot bones" and ashes—so on till the heap was completed—being about two cart loads. The boiler would hold about four bushels; each time the bones were taken from the boiler, the hot water was thrown on to the compost heap. In this situation the mass remained from June till October, when it was carted on to wheat stubble, and applied in about the same quantity as was good manure from under my dung shed. The land was soon plowed. In May last, the land was again manured and plowed, and planted with corn. The portion of the field which received the two loads of compost, is decidedly the best, though the whole field is a number one piece of corn. It was, however, much injured some ten days ago, by the wind and rain—the outskirts of a terrific hail storm that passed just north of my place. Some of the piths, when carted out last fall, were as sound as when on the cattle's head—others were easily crushed in the hand. I presume the boiling dissolved much of the gelatine, and another portion was decomposed in the compost heap, thus forming a good amount of ammonia—both "actual and potential." This was readily soluble, immediately available to the plants—which caused them to throw out from sixteen to twenty suckers from each hill, with leaves and ears to correspond.

Last winter I tried to disintegrate half a cart load of pits in fermenting horse manure, as recommended by Dr. Gibbs. The bones and manure were placed in alternate layers. In the spring, found the piths sound and fresh, and the manure badly firefanged; perhaps if they had been boiled, or soaked in water for a few days previous to placing them in the manure, the experiment would have been more favorable.

In May last I planted a piece of inverted sward land with potatoes—used none other than concentrated manures—two rows with guano—hen-dung—an artificially prepared manure from old boots, shoes and scraps of leather—a horn-pith to each hill—tounges and sounds, &c., &c. The rows having a horn-pith to each hill, now, are altogether the best—I mean the tops. The difference can be seen nearly half a mile. If the potatoes turn out in proportion to the tops, horn-piths will prove a most valuable manure for the potato crop. I presume the same piths may be used for that purpose for twenty or thirty years, and then be most as good as new. I cannot tell what the "tounges and sounds" would have done, for about the time the potatoes were coming up, all the dogs for two miles round congregated in my potato patch, and dug up every hill, root and branch, where the fish manure was applied.

Some ten years ago, a bone-button manufacturer sent me several barrels of bone saw-dust to experiment with. A table-spoonfull of the fine dust to the hill, at the time of planting my potatoes, just doubled the crop. A bushel of potatoes, where the bone was applied, could be dug as quickly as half a bushel could be in the rows that had none.

In the spring of 1837, I applied to a piece of land, that the previous year was planted with Swedish turnip, at the rate of 150 bushels of broken bones per acre. They were plowed in deeply, and the land was sown with five pounds of Lucern (French clover.) In the course of three years the other grasses eradicated the lucern; but the other grasses produced at the rate of three tons of hay per acre for several years. Then the ground was plowed, and sown with wheat and tall-meadow oat grass seed, (and by the way, I will here just give it as my humble opinion, that the *out grass* is unworthy of cultivation, either for hay or pasture.) I had a fair crop of wheat, and for several years the oat grass stood, when headed out, at least five feet high, and as handsome as a field of grain. But, Mr. Editor, you and I have lived long enough to know that appearances are sometimes deceptive, and this was the case with the oat grass.

In the spring of 1853, I carted on to this oat grass strip of land, and also a strip each side it, at the rate of twenty-five cart loads of green manure, taken from under my dung shed. This was evenly spread, and with a good plow turned under to the depth of six to eight inches, rolled, harrowed, and planted with potatoes—a very good crop, but the boned portion altogether the best. In the spring of 1854, the ground was prepared for sowing by the use of the cultivator and harrow—sown with oats and clover seed—a very dry season. The oats were good on the boned part of the field; the other portions very light. The first of September, after the oats were off, the whole was alike manured, and sown with the white flint winter wheat. The land being rather flat and wet, it was thrown into ridges. The result was, that but very little of it was winter killed, and I had a prime crop, especially that upon the *boned part;* this, at harvest, stood upon an average four and a half feet high, having neither midge, rust, or mildew. It was my intention to have underdrained the land last autumn, but other labors prevented. On that portion of the field that received the bones seventeen years ago, there was this year a most luxuriant crop of red clover and honeysuckle, while on the strips each side, it was mostly sorrel, with here and there a straggling bunch of clover. The great difference in the crops on the different parts of the land, is unquestionably due to the heavy dressing of broken bone put on seventeen years ago—and seventeen years hence their lasting and beneficial action will doubtless be plainly seen.

From the facts adduced in this paper, I think it must be for the interest of every farmer to collect all the bones within his reach. If they could be ground, or made into super-phosphate, they would act more speedily; but in the absence of bone-mills and sulphuric acid, they are richly worth saving. Break them up as fine as you can with an old axe, and apply them to a loamy soil, and you will be manuring your land for yourself, children, and grand-children, if they are wise enough to keep the old family homestead.

But in addition to an increase of crops, by the use of bone manure, there is another important consideration connected with this subject, viz: the health and thrift of our cattle. For lack of phosphates in the grasses of the pastures and mowing fields of a large portion of the old and long grazed and cultivated farms of New-England, our cattle are afflicted with the "bone disease." At some future time I may have something to say upon this subject through the columns of the Country Gentleman. Levi Bartlett. *Warner*, *N. H.*, *Aug.* 20*th*, 1856.

Good Roads—Ruts—IV.

If water, with its frost, its mud, its swine-holes, its dislocations and evil consequences, is the chief foe to good roads in our rural districts, and even on our great thoroughfares, it is not the only one. Indeed they may be classed as ordinary and incidental.

Of the former, water is the first; and next to it, I would name RUTS; resulting from a blind and selfish manner of driving; especially in reference to heavily loaded wagons or teams, or any heavy going machines on wheels.

When I first traveled on roads in England, April 30, 1833, as I well remember, from Portsmouth to London, 70 or 80 miles, in one day, it seemed to be indeed the poetry of traveling; and a splendid progress, terminal with a fitting climax, in the renowned and great metropolis of England.

Our easy stages of ten miles, more or less—not much varying, were run each in one hour. We rode outside, and so enjoyed the scenery, so new, so various, so peculiar; art and nature everywhere blending in the landscape; and all nature, just vivifying from the rigidity of winter, was swelling into renovated life and beauty. But one thing struck us; we saw it, we felt it all the time—the glory of the roads! Brother Jonathan must own it; to the honor of his own venerable grandsire, Sir John Taurus, Bart., that he never saw such roads before! Never—they were so fine; it was such music to roll over them. Not a stone on the surface, nor a gulley, nor a pig-hole, nor a rut. It was all one archiform and perfect surface, showing science in its effects and utilities; inferring the highest civilization, and bespeaking respect for the country that has the skill, the thought, the wealth, the power, and all the means, to make and keep such admirable roads.

I inquired the reason, of the guard or the driver, and was told as follows: We are required to avoid ruts and at all events never to make them. Hence one never goes where others have lately gone; and the result is—no rut is made! We reflect not only that others are to come after us, but that ourselves are to use the road again, probably; and hence we feel an interest, and an honor, and a pleasure, in leaving it at least no worse for the wear, when we use it. On the contrary, it becomes impacted and improved, rather than injured, by the drive of any man of sense and tact that wheels over it. He also remarked that some poor old people, and sometimes children, were kept employed in migration over it, to remove every stone, stick, and other incumbrance, and so preserve it smooth and regular, as well as neat and clean, fit for the chariots of nobility, as well as the post-chaises and pleasure drives of the commonality of England.

Where no care or thought is bestowed on the subject, it is no wonder that we democrats have the worst of it, with our rough, ugly, disagreeable roads; mainly because we have no time and no thought, no toil and no expense, to bestow on the subject. *Shall I praise you in this? I praise you not*, fellow citizens. It is time—after the election, to take this topic into our consideration, since there is need enough of it! As good fences are said to make good neighbors, so good roads improve the appearance and the character of the neighborhood, are favorable to kind and happy intercourse, and even augment the value of acres, houses, and the people that live near them. Rusticus.

The Cashmere Shawl Goat.

Messrs. Editors—In the August No. of the Cultivator, I read the article of Mr. R. Allen of Tennessee, on the "Cashmere Shawl Goat." On this subject I am desirous of more reliable information; and as editors are bound to know everything, application is hereby made to you for it.

I have been examining the "Encyclopœdias" and "Dictionaries of Arts" for information touching goats and shawls. I find therein, if I understand what I read, that the Cashmere shawls that are made in the east and bear so high a price, are made of the *wool* of the Thibet goat—that it is a fine wool or fur that grows next the skin, under a coat of long coarse hair; and that the fleece, after the hair is combed out, amounts to a pound or a pound and a quarter or half—which fleece, small as it is, is not represented in any of the books I have seen, as ever bearing the *fabulous* price of eight or ten dollars a pound. As far as I have been able to refer to authorities, I have heard of no wool bringing that price out of the United States.

The French people are said to have imported the Thibet goat, and manufactured what are called French Cashmeres, but I see no account of eight or ten dollar wool in France.

The few Cashmere shawls I have seen are evidently made of *wool—a fine felting wool, and not hair.*

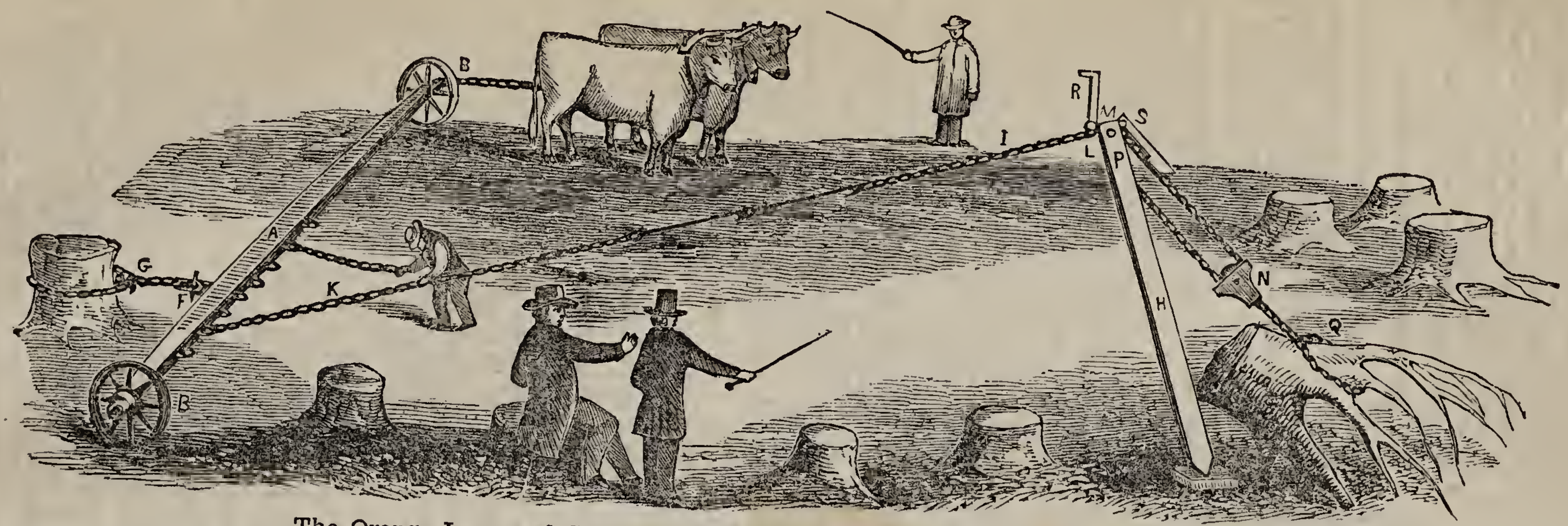
I read in the books, and see the pictures of a goat called "Angora," which answers very perfectly to the qualities and appearance of Dr. Davis' "Cashmere" goat. (By-the-by I can find no account of a goat in the books called "Cashmere.") The Angora goat produces a long, white, beautiful silky hair, (but no *wool* at all,) of which camblet and Angora shawls are made. But I apprehend a high priced "Turkish Cashmere shawl" has never been made of such material.

Dr. Davis, in his communication to the Patent Office Department for the year 1853, says those animals may be obtained in Asia for from four to six dollars a head on the spot, and that they yield a fleece of from four to four and a half pounds—I suppose annually, though he does not say so. Now, Messrs. Editors, if they can be had in or about Angora for from four to six dollars, and their fleeces of four or four and a half pounds, are worth in the English or French market, eight or ten dollars a pound, is it not strange? If they can be bought in Asia Minor for four to six dollars, and sold in Tennessee at $1000, is it not passing strange that there should be but one importation, and that a small one, in ten years?

Pulling the wool in place of shearing, is another strange procedure it seems to me.

I am sorry Mr. Allen does not name the New-York house that has engaged the Tennessee fleece at eight dollars and a half a pound, for then I could have inquired of that house for further information on the subject.

This is a very interesting and highly important matter, and I hope you will as early as convenient, give us through the Cultivator, full and satisfactory information. Particularly I should be glad to know how long the people of Paisley in Scotland, have been manufacturing high priced Turkish Cashmere shawls out of Angora goat *hair*. Agricola. *Greenville C. H.*, *S. C.*



The Orange Improved Stump Puller—Patented by W. W. Willis, March 6, 1855.

The above cut exhibits the operation of the machine so plainly, that a description is rendered unnecessary. We add from the *Springfield Republican*, a notice of a recent trial of one of these machines on the Massachusetts State Farm:

Exhibition of W. W. Willis' Stump and Rock Extractor at Monson.—What the substitution of machinery for hand-labor has done for manufactures, the use of improved implements, operated by brute force, instead of the old ways of doings things by the hardest, is likely to effect for agriculture. But it must be remembered that the mower, the reaper, and the horse hoe, work badly on rough, unprepared fields. Something is wanted to prepare the way for them.

Willis' Stump Puller is an admirable contrivance for this purpose, and is far in advance of anything that has preceded it. A trial of its power took place last Thursday, on the State Farm at Monson, under the superintendence of Dr. S. D. Brooks. Those acquainted with the Monson farm know that portions of it are amazingly rocky and abound in stumps, having a little good soil diluted among so many obstructions as to render it unavailable. The best thing was for the state never to have bought such land; but since they have bought it and erected the buildings for the Mountain school, the next best thing is to set the stump and rock machine at work; and this Dr. Brooks, who by the way is a capital farmer, is doing to good effect.

The trial was satisfactory to a large number of spectators gathered for the purpose of witnessing it. Rocks and stumps that would defy any ordinary appliances, were pulled out with the greatest apparent ease, by a single yoke of oxen. The exhibition of mechanical power was in itself pleasing; but was doubly so from considerations of utility.

This machine is destined to work changes in agriculture as gratifying to the man of taste as to the lover of profit; and we understand that it is fast coming into use, the right for Kentucky having been recently sold, and we believe also for New-Jersey, as well as for most of the New-England and Western states. We learn that an order for ten machines was some months ago received from South America, and that the parties, after trying them, have since forwarded an order for twenty more. They are manufactured at Orange, Mass. where Mr. Willis resides.

Fruit Growers' Society of Eastern New-York.

An esteemed correspondent at Ilion, Herkimer county, N. Y., suggests the organization of a society for the purpose of bringing the Fruit Growers and amateurs of the eastern portion of the state "within speaking distance of each other." He remarks, "The country all around us, seems to be enjoying itself with societies of a pomological character. The western portion of the state has declared itself free and independent, and great success has been the result. Now, why cannot the *eastern* portion organize a society of a similar character? We have a large territory well adapted, and well filled with the right kind of material to support a society of this character. There are a large number of fruit growers among us, and many might be so who are not. The section of country bordering on the Hudson abounds in plentiful support, of a good quantity and good quality."

We entirely approve of the suggestion of our correspondent; and the only requisite for success is for a few prominent and energetic fruit growers to get together, digest a plan for organization, fix on a time and place for the first meeting, and publish the call extensively. There is no question that a determined action of this charactor, would bring together many interested cultivators, and that the organization could then be perfected, and a society formed. Albany would be a convenient and central place, and if not thought best to act immediately, the first month in next year would be a suitable time for appointing the first meeting. The success of the enterprise will depend wholly on the energy, zeal and perseverence, of a very few of the leading supporters of the enterprize—the rest will only follow.

Ellwanger & Barry's Nursery.

At a recent visit at this celebrated three hundred-acre nursery, we saw as usual much to interest the fruit grower. Their collection of bearing plum trees is the finest we have ever met with. One of the proprietors had examined on the day of our visit no less than sixty varieties at maturity. Seventy sorts were in fruit. Most of these were young trees set out only four and five years, growing rapidly and bearing fine specimens. A large number were older, and among these we observed a tree of the Bradshaw, which was itself worth a journey to see. It has stood about seven years, was now a pyramid about eight feet high, and loaded from top to bottom with a profusion of large, showy, reddish purple fruit, of which there could not be less than a bushel on the tree. Among the newer varieties the Caledonia and the McLaughlin were found to be of excellent quality. The latter, if uniformly as good, is destined to take the highest rank among the American varieties. It has the round full form, and the rich netted green skin, and the sweet and delicious flavor which distinguishes the Green Gage, to which it is scarcely if any inferior in quality.

The crop of plums was saved from the curculio, by the mode noticed a few weeks since, which consists simply of beating the surface of the ground beneath the trees smooth and hard, and then daily sweeping up the fallen punctured fruit. This remedy is quite similar in its nature to that of turning in swine and poultry, being merely the removal and destruction of the young insects. The result in this instance showed its entire efficiency.

Their collection of bearing dwarf pear trees, consisting of several thousand, did not present such full crops as last year, yet many of them were loaded. Two rows of the Virgalieu, about eight years old, in a very thrifty growing state, furnished a decisive proof of the success of dwarfs, when well cultivated. Many of them were bending under large crops. They were pruned once a year in spring, the labor of which was trifling, and the cultivation they received was not probably more than every good farmer and gardner bestows upon his hoed crops. Last year, a half acre of dwarf Virgalieus, *four years from the bud*, bore *sixty bushels* of excellent fruit, such as would sell readily on the ground for ten dollars per barrel—which would be at the rate of abut five hundred dollars per acre—a fair beginning for such young bearers.

A brief visit allowed only the examination of their home grounds, (which consist of about eighty-five acres,) most of which are occupied with ornamentals and the smaller fruits. A single block of two acres of roses, a large portion of them remontants in bloom, presented a beautiful appearance. There are about seven acres in all devoted to roses. One acre was occupied with dahlias. Three acres were closely planted with currants, of which there must have been, according to an estimate made on the spot, over 200,000 bushes. Nearly an acre were the White Grape Currant, the finest white variety.

The fruit-tree department of this establishment mostly occupies two large nurseries a mile or two distant, which also contains most of the hardy evergreens, among which are about half a million trees of the Norway Spruce, from one to six feet high.

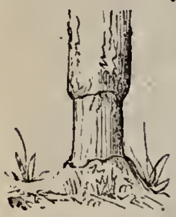
A want of time did not admit a visit to the extensive nurseries of A. Frost & Co., in the same neighborhood, but we intend on a future occasion to furnish our readers with a full notice of them.

Foreign Agricultural Items.—The Registrar General of Ireland has addressed a circular to each county surveyor, recommending that "a special covenant be introduced into all the road contracts requiring the destruction of weeds on the sides of highways."——The Irish Farmers' Gazette states that washing in water that potatoes have been boiled in, destroys fleas on dogs or other animals.——The North British Agriculturist justly finds some fault with the Royal Ag. Society management, because agricultural and other editors are allowed no view of the shows, except in common with the outside public.——Three steam plows have been exhibited, one to go on a portable railway of its own, the "first in the order of merit," but open to objection for not keeping its nine plow-shares in operation—the other two to work with windlasses.——In France, in 1852, the value of the alcohol distilled from beet-root was $100,000—in 1855 it had increased to $10,000,000.——A number of French cattle were on exhibition at the Chelmsford Royal Ag. Society's show—said to be the first time this has ever been the case.——In Scotland the wheat promises to be a large crop, and has not yet suffered from the late rains. Barley also promises well. Oats on the high undrained lands have suffered greatly from the wet.——In Ireland, high winds accompanied with weather unusually cold for midsummer, had done some injury to the wheat, flax and potato crops, but it was hoped that the yield would be a full average, with an early change to finer and warmer weather.——Everything in France "augurs a harvest superior to that of an average year. The prospects of the vintage are reassuring."——Recent rains had done some injury to crops in England, but they promise to be on the whole most abundant,—wheat, barley, oats, beans, peas, turnips and potatoes all looking well.——At the recent meeting at Mr. Mechi's farm, Tiptree Hall, there was exhibited bread made of flour and mangel-wurzel in equal parts. It is calculated that, if the wurzel be properly grown, it will reduce the price of bread one-half.

Death of a Celebrated Horse.—The *Spirit of Times* announces the death, last week Tuesday, of the imported horse 'Trustee,' the sire of the renowned mare 'Fashion' and several other remarkable trotters. He had reached the advanced age of 27 years.

Mice-Gnawed Trees.

The remedy of connecting the upper and lower portions of the bark of fruit trees, separated by the gnawing of mice, has been known, published and practiced for many years, although recently described in some of the papers as new. We have, however, recently witnessed a mode of applying this remedy, adopted by S. M. Woodruff, of Canandaigua, N. Y., which is so simple, easy and efficient, that we think it worthy of being placed before our readers for future use. About seventy of his fine young bearing trees had been completely girdled, some of them for the length of nearly a foot, and this remedy has saved nearly all of them.



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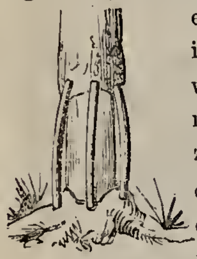

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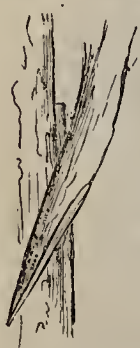


No. 2.

A number of young shoots or portions of the branches of apple trees are first provided, and, as they are wanted, are sharpened in the form of a wedge at each end, being long enough to connect the upper and lower portions of the bark, separated by gnawing. A chisel, the breadth of which is about equal to the diameter of the shoots, is then driven into the bark, (say half an inch from the gnawed edge,) both above and below, and the prepared or sharpened shoot is then firmly pressed at each end into the cut made by the chisel. This is easily done by first bending the shoot outwards at the middle, so as to allow each end to enter, and then crowding it in again. The place must be then well waxed. The *edge* of the chisel must be placed so as to make a horizontal line in the bark, and then be driven nearly vertically upwards or downwards for the upper or lower parts of the bark. When the shoot is placed in the cut thus made, some portion of the line between the bark and the wood in both tree and shoot, must necessarily coincide, and as a consequence, the two parts almost invariably adhere and grow together—there is scarcely ever a failure. Fig. 1, represents a girdled tree; Fig. 2, the same with the shoots inserted; and Fig. 3, is an enlarged section, showing the position of the sharpened end of the shoot when in its place. The great advantage of this mode consists in the rapidity with which the work may be done, and the difficulty of displacing or knocking out these shoots when once in. There should always be a few stout stakes driven around each tree, to keep off plows harrows or cultivators, which might otherwise strike the tree and loosen these shoots.

The shoots used were about one-fourth to one-half an inch in diameter when applied, and they had already tripled their original size. Probably larger ones would be better, and the more numerous they are the greater will be the security, and the sooner they will grow and unite in one solid trunk.

Seeding Lawns.

Messrs. Editors—I have a fine lawn of five acres, in the center of it about, stands a house, wood shed, grape arbor, &c. Being covered with young fruit and ornamental trees, carriage paths and flower beds, I am not disposed to plough it up, although it needs it badly, as in many places grass has given place almost entirely to weeds. What I want is information *how* to make the bare places green with grass again, without the aid of the plow and the use of barn-yard manure, which I have not got, nor is it easily obtained in my vicinity. What kind of seed, when, how, and what artificial fertilizer shall be used? The soil is mellow, and during the past season has yielded per acre, two tons of excellent hay. Will some of your experienced subscribers answer in your next issue; and inform me also, what fertilizer for top dressing shall I use for the same lawn, how much per acre, and when? w. r. p. *New Jersey.*

Without wishing to prevent any of our more experienced correspondents from furnishing the desired information, we would suggest to W. R. P. to harrow his grass lands repeatedly this fall, and cover them an inch with fine manure or compost, the strength of which will wash out by spring, and impart fertility to the soil. Then *early* next spring, sow timothy and red top at the rate of at least two bushels per acre, and mix the seed with the previous autumn's top dressing, by repeatedly passing over a fine harrow. The seed will quickly come up and furnish a beautiful carpet of densely growing grass, which should be mown once a fortnight for the first half of the summer, and nearly as often the remainder, unless very dry. The harrow should have small and very numerous teeth. Be very sure to sow nothing but grass, and no grain crop with it, which will only injure and retard its growth.

There are several other lawn grasses, which, if the seed can be obtained, all the better, as several sorts are more apt to maintain a constant growth, than where all depends on one sort.

Sowing Plaster.

Messrs. Editors.—Can you inform me through the Co. Gentleman, if it will pay to sow plaster on light sandy land for wheat, oats, corn, potatoes, and meadow, and which is the best time to sow—at the time of sowing and planting, or after the crops are up and rolled in? Would it not be well to brush the grass land after the plaster is sown? I can get plaster at $1 per bag of 200 lbs.—how much will be best to put on an acre? Will it do to mix the plaster and leached ashes? Wm. Lambert. *Ticonderoga, N. Y.*

Plaster is one of those special manures, which sometimes produce surprising results, and at others no visible effects whatever, without any apparent cause for this difference, but which is doubtless owing to peculiarities in the composition of soils which analysis cannot detect. Its utility can be determined only by actual experiment in the different localities where it is used. Under favorable circumstances we have seen a bushel per acre, double the growth of clover, or add fifteen times its own weight to the crop. It has proved beneficial to corn on light land, but its effects are not usually very apparent. On wheat, oats, and grass crops not clover, it is not often of much value. It is said that if sown in autumn on wheat, its best results will be produced. It is commonly sown after the crops are up, the fall of rain dissolving so minute a quantity, and carrying it among the roots of plants. We see no advantage in brushing the grass. Plaster is found to be unnecessary in much larger quantities than a bushel per acre. Ashes may be mixed with it without injury, in any experiment with these two manures.

New-Jersey State Fair.

Newark, Sept. 11, 1856.

Eds. Co Gent.—I arrived here this morning, and give you as desired, a brief account of the Show. We found on our arrival at Newark great crowds of people pressing their way to the show grounds. Mr. E G. Faile and Mr. Richardson of Westchester, were with me as delegates from the New-York State Ag. Society. We were very kindly received by Mr. Frazer, the excellent and efficient Secretary of the Society, and were introduced to Gen. Robeson and other officers of the Society, among whom we were glad to meet our old associate and friend, Thomas Bell, who has done so much good service, and is now doing the like in New-Jersey, where he resides.

The grounds of the Society comprise about 20 acres, about a mile and a half north of the city, and are well adapted to the purposes of the exhibition. Commodious tents and buildings have been arranged for the exhibition—and stalls for cattle and horses, and pens for sheep and swine. A fine graded track of half a mile or more for the show of horses.

The exhibition of stock is quite limited. Messrs. B. & C. S. Haines of Elizabethtown, are the principal exhibitors of Shorthorns, and their animals would do credit to any show. Their bull "Lord Vane Tempest," bred by J. C. Jackson of Astoria—sired by his bull Astoria, is a very fine animal—and several young animals sired by Astoria and Lord Vane Tempest, on exhibition, were very superior. All of them were excellent handlers, and of prime quality. Mr. George Hartshorne of Locust Grove, Rahway, had a good Shorthorn bull bred by D. B. Haight of Dutchess county. Mr. Ayrerigg had a good bull and cow—the bull exhibited at U. S. Show, Boston, last year. Jas. W Bathgate of Fordham, Westchester Co., N. Y., exhibited a Shorthorn bull—a very good animal.

Of Devons there were but few. Mr. Tredwell, of Madison, Monmouth county, exhibited two bulls and two heifers, very fine animals indeed, out of the Hurlbutt stock, Conn. These were very choice animals, Some excellent Ayrshire cows were also shown by Mr. Tredwell, and a few Alderneys by other parties. I had expected to have seen Mr. Colt's superior Alderneys present—which would have done credit to any show in the country—but I regretted to hear that he was taken suddenly ill a few days since, which prevented his stock being exhibited.

A bull and calf marked as thorough-bred Herefords, seemed to me from their color and appearance, to be grade Shorthorns. They were fair animals, but I have never seen in this country or in England, any Hereferds of their color. The grade cattle were very good—and some creditable working oxen.

The show of sheep was small—but some very good South Downs were shown by Geo. Hartshorne and a gentleman who purchased largely at Col. Morris' sale.

The show of pigs was excellent though small—Messrs. Haines and Mr. Hartshorne making almost the entire show. The former gentlemen showing Suffolks of the Jackson importation, the best I have ever seen in this country, and some Leicestershire pigs; Mr. Hartshorne showed some capital Berkshires.

The horses were by far the largest and best part of exhibition, there being many first-rate animals on the ground; but we were prevented from examining them carefully, owing to a very severe rain storm that nearly broke up the exhibition, which commenced just as the ground had been cleared and the track arranged for the show of horses.

Of implements the show was quite small; but few mowers and reapers present—and I was surprised to find so few of our improved implements on the ground. One of the officers of the society said to me, probably they had not yet heard in some of New-Jersey and in New-York, that there was to be a show. This is much to be regretted, and certainly the implement makers can never find a better place to call the attention of farmers to their articles than at State and County shows.

The fruit exhibition, though not large, had some very choice fruit. Mr. B. Haines had some very choice grapes—among others, the "Black Prince," tho clusters weighing from three to four pounds, as we were informed by his son. They are grown under glass, and look very much like the California grapes exhibited at our rooms last winter. A very good show of pears and peaches, though the extreme dry weather has materially affected the fruit, and the show not unequal to last year.

A fine display of carriages from Newark, celebrated the world over for their fine coaches, which have been found almost every where before the "iron horse" entered upon the course and distanced them.

There was a very large attendance to-day upon the grounds, and had not the rain descended very heavily in the P. M., the receipts would have been very large. It is to be hoped that to-morrow, the closing day, will be all that may be desired. The address is to be delivered by Hon. John P. Hale, Senator, New Hampshire; and the exhibition of horses will doubtless attract many to the exhibition. We hope the deserting to-day will be more than made up by the attendance to-morrow.

The friends of agriculture in New-Jersey have no cause to be discouraged—perseverance will enable them to overcome every obstacle, and "The Jersey Blues" will yet decide for agriculturo and its improvements in all its branches.

We are under obligations to the President, General Robeson, the Secretary, Mr. Frazer, Mr. Bell, Mr. Hartshorne, the Messrs. Haines, and others, who facilitated us in our examinations, and enabled us in the brief time alloted to us, to examine the exhibition. We hope to see many of these gentlemen at Watertown Several assured us they would be there, and some of them as exhibitors. If some of the stock we saw there should be shown, we have only to say, as was once said by a distinguished New Englander at a fair at Worcester, in 1844, of the ladies of New England, "*They will be hard to beat.*" J.

Borer in the Pear Tree—Flour Worm.

[We copy the following from a letter of a correspondent. Perhaps our esteemed correspondent, Dr. Fitch, or some other of our readers, may be able to furnish the desired information. We should be glad to receive any of the results of practical observation, from any source.]

I wish, while I am writing, to say a word about the Borer. I have been engaged in the nursery business for the last fifteen years, and last year for the first time I discovered the Borer in my pear trees. They look like the Apple tree Borer. They were young and just began to work. This year I find them again. I have just examined them, and find some of them about one-fourth of an inch in length, others less; some just hatched, that had not showed any external signs of their work, and in one or more instances I found the egg that was not hatched. I found them this year in my dwarf pears that had been set but three years. They were in the body, three to five inches the above insertion in the quince. I wish to ask first, are they the Apple Borer? and secondly, is their work the same as in the apple?

One more question—I find in my flour a whitish worm half to three quarters of an inch in length, brown or yellow head, with long hairs on the body. I keep my flour in the attic—rather a warm place. What is the cause of these worms, and what the cure? Joseph E. Phelps. *Worcester, Mass.*

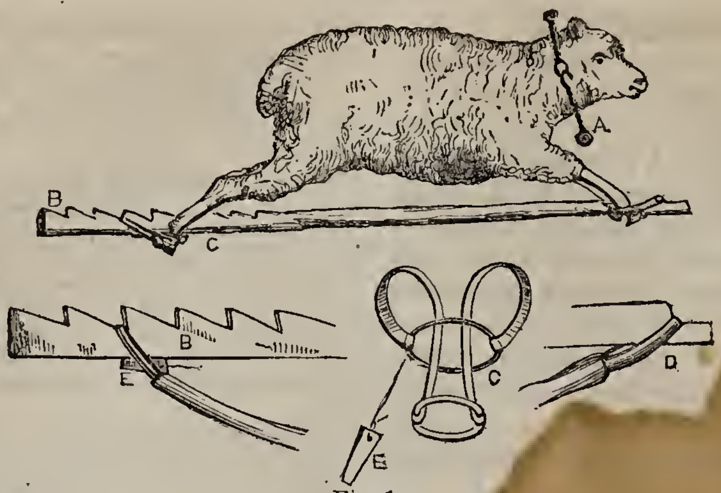


Fig. 1.

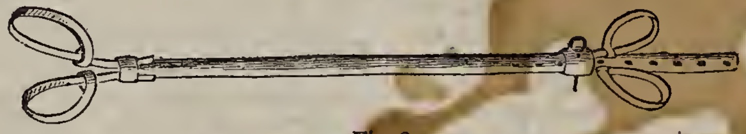


Fig. 2.

Apparatus for Sheep Shearing.

Messrs. Tucker & Son—Not having seen any notice of any improvement on the old-fashioned mode of shearing sheep,—no doubt as uncomfortable for the sheep as the shearer—I thought I would send you a sketch of one I have been using for the last three years, which I find to be just the thing. It was first made and used by a neighbor who has followed shearing many years. It has these advantages,—the shearer stands up to his work, having both hands free; the sheep cannot injure itself by struggling, even if heavy with lamb, and you can shear faster and easier.

Description. A, small rope, with iron ring in the end, passes through two holes in the table, and over the sheep's head.

B, Hickory stick, 7 ft. long, 2 inches wide at the notched end, notches 1½ or 2 inches apart, for adapting it to the size of the sheep.

C, Shackles, made of two leathern straps, one inch wide, fastened to each end of a small iron ring, 1½ or 2 inches diameter, and passing and fastened to another ring 2 inches in diameter.

D, Forward end of stick B.

E, Wooden wedge, to fasten rings on the notched stick.

Mode of operation. The sheep is caught, turned on its haunches, and the under part of neck and between the fore legs are sheared; then lifted on the table or bench, the head placed under the rope, the leather shackles put on the feet, and stick inserted—as shown in the cut; one side is sheared and then the sheep is turned over, and finished. Hoping this may benefit some of my brother farmers, I submit it to your consideration. E. M. S. 20 *Mile Stand, Ohio, March* 12*th*, 1856.

[It strikes us that any assistance in performing the laborious and disagreeable work of shearing sheep will be especially acceptable to the farmer, and we gladly give place to the above. A friend suggests an improvement, shown in Fig. 2, representing two leathern loops at each end of a stick, through which the feet are inserted; and as the legs are extended these loops draw tight and hold the sheep fast. A sliding ring, with a pin and holes, accommodates it to the size of the sheep. Two leather straps (not shown,) nailed to the table, and connected by a buckle in the middle, then receive the neck of the sheep, as in the mode described by our correspondent.]

Foot-Evil in Cattle.

Messrs. Tucker & Son—You may tell "J. R." to take a little pulverized blue vitriol (pulverized very fine,) make a salve with butter or lard, and apply it to his cows' feet two or three times every other day. I never saw it fail of making a cure, and if he keeps his cows on dry land, he will probably never have any other case of the kind. Such is my experience. If the above makes a cure, will J. R. please send me a three-cent postage stamp—if no cure, no pay. John Johnston. *Near Geneva, N. Y.*

Corns on Horses' Feet.

J. G. Kemp of Wayne Center, Ill., says in the *Prairie Farmer*, that he knows "by experience that by paring the hoof and cutting the corn off slightly, not too much, because that will make it sore, and then applying spirits of Salt, you may cure corns of long standing. Three cents worth of spirits of Salt, will last a man his life-time."

Tansey for Garget.

A friend of mine informs me that Tansey is a sure remedy for the garget in a cow's bag—that any cow that has the garget will voluntarily eat green tansey by the handful as she would hay. If this is the case, the public ought to be apprised of it. I have had no occasion to try it since I have been apprised of the remedy. J. C. Collins. *Constableville, N. Y.*

Potato Digger.—A patent has been issued to A. L. Grinnell and J. Z. Williams, of Willet, Wisconsin, for a new potato digger. It consists of a series of iron prongs or forks pivoted together like a pair of scissors or oyster rakes. The prongs are open when thrust into the ground, but in the act of pulling them out, their lower ends come together, and the potatoes are thus lifted from the hill.

The Best Layers.

Messrs. Editors—Noticing articles in your journal on the relative value of certain breeds of fowls for laying, permit me to endorse a recent statement by the "Brooklyn Hen Coop," as to the qualities of the Black Spanish and Leghorn fowls. I have kept them both for some time, as well as a number of other varieties, but find none to equal them in the quantity or size of eggs—rarely evincing a desire to set—in fact none of my Leghorns have ever shown that desire. Last Spring I confined three hens and one cock of the following named varieties, each quartern in a separate enclosure, and for 72 days kept an accurate account of their performances, which was as follows, beginning Feb. 17 and ending April 30th:

Leghorns laid 122 eggs—No disposition to set.
Spanish do 103 do do do
Bl'k Polands, 83 do do do
Gold do 66 do do do
Grey Dorkings, 65—all setting April 15.
Cochin Chinas, 43 do do March 13.

You have here the merits of the above fowls as layers, as far as my experience goes. Of course the great severity of the weather at that time must be taken into consideration. R. W. P.

I have read with much satisfaction the remarks of "Brooklyn Hen Coop" in your last issue. I am satisfied from my own experience, as well as the information I receive from friends who breed Leghorn fowls, that for laying they are superior to any other variety. They do not attain so large a growth of body as some other kinds of fowls, and for this reason may not be so desirable for the table; their eggs, however, are of a very fair size.

I have imported several direct from Leghorn, and have never known one of them manifest a disposition to set, and am compelled to secure the services of a hen of some other breed to hatch their eggs.

Strange to say I have never seen the Leghorn fowl noticed in any treatise on poultry which has come under my observation. It may possibly be classed with the Black Spanish, as it resembles them in many particulars, although I am disposed to consider them distinct species.

I have had experience with most, if not all, varieties of domestic fowls, and have no hesitation in placing the Leghorn breed before any other, and I think were they substituted for the present generation of fowl the egg crop would be increased at least 50 per cent. "A Subscriber in Westchester Co."

Best Layers.—"A Young Housekeeper" wishes to know what breed of fowls will lay the most eggs and set the least. I am something of a hen fancier—have the far-famed Shanghais, Dorking, Cochin Chinas and Bramah Pootras; but I have another breed called the Creoles, which excels them all. I bought one dozen of them three years ago, and but one of them has ever showed a disposition to set, and if they are properly cared for they will lay every day in the year, winter and summer, Sundays not excepted. As for beauty they are far ahead of any of the above named, small, speckled, and well proportioned—eat less, and disturb my garden less than any fowls I have. O. L. B. *Springdale Garden, Davenport, Iowa.*

Stock for the West.—The *Boston Cultivator* states that Mr. James J. Smart, who has lately removed from Cambridge to Davenport, Iowa, has purchased of Mr. E. Corning, Jr., of this city, a two-year-old Hereford bull and two yearling heifers of the same breed. He also takes out five breeding mares, some of which are understood to be of the Black Hawk blood, and a three-year-old colt of the Green Mountain stock, purchased of Silas Hale, of Royalston. He also purchased of Mr. Corning some Suffolk swine.

A Large Leaf.

We have measured a leaf of the *Victoria regia*, as it grew in the hot-house on the grounds of Caleb Cope, near Philadelphia, that was six feet two inches in diameter, of a nearly exact circular form. But this was a tropical plant, growing in an artificial tropical climate, and in water with a tropical temperature, kept in constant motion by a wheel so as to imitate the flow of tropical rivers, where alone this plant flourishes in its natural growth.

But the largest single leaf we remember to have met with, growing in open air, on a hardy tree, was recently on the grounds of Ellwanger & Barry, at Rochester. A paulownia, after being set about five years, had grown to more than ten inches in diameter, and shading other more valuable plants was, last spring, cut down. A shoot sprang up which is now bearing several large leaves, one of the largest of which measured *three feet and one inch across.* Its shape was quite similar to other and smaller leaves of this tree. It would do for a small table cover.

Bark-Blight in the Pear.

Messrs. Editors—I have a row of fine Pear trees, running east from my barn-yard—the first tree standing 8 or 10 feet from the barn-yard fence. They ripen their fruit about first September. Last spring they put forth shoots, leaves and blossoms as usual, and seemed to be going on to perfect their fruit. About the middle of June the leaves on some of the limbs of the tree nearest the yard began to decay and finally died. I examined the dead branches, and also those in the process of decay, and found the disease generally began about the termination of the growth of the limb in 1854, some three to five inches of which was as dead as if life had been extinct a year, the bark and wood quite through the branch being black and brittle, while the bark and wood at the end of the branch out was not discolored, and seemed to be failing only for want of nutriment. The disease is still making some progress—about a fourth part of the branches being affected. A few of the branches of the next tree east are affected also, but further on the disease has not yet appeared. My barn-yard has in it some straw in a state of partial fermentation, my cows being yarded upon it nights. Permit me to inquire if there is, probably, any cause of this disease arising from the yard, or whether it is from some other source, and whether there is a remedy? J. P. *Mosherville, N. Y.*

The peculiar modification of disease described by our correspondent, in which the bark dies and dries up in patches, is not uncommon in pear trees. It appears to be caused or increased by the changes of temperature. We are not aware that rapid growth or thriftiness, (caused by proximity to the cattle yard,) contributes to this form of disease, although it often causes or hastens common fire-blight. We would recommend a free excision of all the diseased parts; for these portions can never recover, and the rest of the tree would be undoubtedly better without them.

Wheat Crop and Draining.—Our friend John Johnston, Esq., of Seneca county, writes us under date of Aug. 15, as follows:

"I have threshed 25¼ acres of this year's wheat-crop (Soule's wheat), from which I have 847 bushels of 60 lbs. to the bushel, and which I sold for $1,396.55; but you must not take this as a criterion of the crops in this county. With one exception, I have heard of only one farmer who has over 15 bushels to the acre, on undrained land, and he said he had nearly 18 bushels of Mediterranean, but his *Soule's* was nothing. You must make our farmers do better than that, else you may as well turn your paper into a political one, and give up agriculture at once. *The crops on drained lands are good.*"

Inquiries and Answers.

Raisins.—Can any of your numerous correspondents inform me of a process for making raisins from our native grapes? If such a thing is practicable at a moderate expense, it would be not only a luxury which nearly all our farmers might enjoy, but a national benefit, as a large amount of money is annually sent to foreign countries which might be saved to our citizens could the article be produced at home. Any information or experiments on the subject, would be thankfully received by A Farmer. *Harwinton, Ct.*

A Mole Trap.—I saw in the last number of The Cultivator, an inquiry for a method to keep moles out of gardens. I know of no better method than to catch and kill them. The kind of mole was not mentioned, but I suppose it was the blind or rooting mole. For this kind we have a trap that is made in New Milford, that will rid them in a short time. J. L. M. *Bridgewater, Ct.*

New Oxfordshire Sheep.—Can you, or any of your correspondents, inform me where what is called the New Oxfordshire Sheep can be obtained—say a buck and two to five ewes, and at about what prices? A. M. Barton. *Vergennes, Vt.* [Col. J. W. Ware, Berryville, Va., has, we believe, the best sheep of this breed in the country, but we do not know his prices.]

Liquid Manure—*J. T. G., Wilmington, Del.* There are various ways of securing it for application to soils. If for gardens or cultivated crops, it may be diluted with water, so as not to corrode or injure the plants (a few trials on a small scale will best determine this point,) and used for watering. Penetrating the soil and becoming finely diffused through it, it operates to the best advantage, as no *solid* fertilizer can be so evenly mixed with earth. It may be also used for saturating powdered charcoal, dried muck or peat, or thoroughly dried loam, all of which will thus become highly enriched, and constitute strong manures.

Best Time for Transplanting—*J. Pratt, N. Hebron, Wash. Co., N. Y.* The best time to transplant fruit trees, is in autumn and spring. In autumn, when the growth has entirely ceased, and the leaves begin to drop, until the ground freezes up; and in spring as soon as the ground is open, till the buds begin to expand into leaves. Unless with tender trees, which should be set in spring, it is unimportant whether it be done in autumn or spring, the great requisite for success being good cultivation afterwards. Transplanted stocks or trees, should grow one summer first, and recover something of their vigor, before grafting. The common blue plum is a good stock for the fine grafted sorts.

Plowing-in Wheat—*B. B., South Brookfield, N. Y.* Plowing instead of harrowing in wheat, when done at a moderate depth, has been successfully practiced by many farmers. We have never known seed wheat, after being harrowed in, to be eaten by *mice*—plowing would doubtless render it more secure from these depredators, but we should prefer to drill it in by means of one of the best wheat-drills, which buries it deep enough and with uniformity.

Coal Ashes.—Will you be kind enough to state in the earliest issue convenient, so far as you may be able to—of what value hard coal (Lehigh, Scranton, &c.) ashes are to land, and if they are beneficial or injurious to grass land, and in what quantity they should be applied if at all? There is a wide difference of opinion, so far as I have been able to ascertain, in regard to their value as a fertilizer, some contending that they are actually injurious, particularly to grass land. I understand some of our gardeners are using them with profit on their gardens, but there is every year large quantities thrown away in our city which ought to be applied to our farms in the vicinity if they are of any practical value. Wallace Warren. *Utica, N. Y.* [Coal ashes are found to contain some fertilizing qualities, but far less than common ashes, as they are chiefly earthy in their character. We have never had much experience with them, but have never heard of their proving injurious—the best way is to give them a fair trial—they doubtless will vary in results on different soils.]

Plans for Cheap Houses.—Our correspondent, J. L. Ashby, of Clinton Co., Missouri, is referred to the cheap edition of Downing's "Country Houses," embracing the first half of his large book, or that portion occupied with *Farm Houses* and *Cottages*—also to Allen's "Rural Architecture," which is especially valuable for its convenient arrangement of out-buildings in connection with the working rooms of the houses. We think he may also find some valuable hints for planning cheap houses, in the several numbers of the Illustrated Annual Register. The price of Downing's cheap edition is two dollars, and of Allen's, one dollar and a quarter. The former is published by Appleton, and the latter by Saxton, of New-York.

Gestation in Mares.—Can you or any of your many correspondents say whether a mare has ever been known to be *thirteen* months in foal? I have a very large bay mare; she was covered by a fine young dark chestnut with a white face, on 1st July 1855. She foaled on 1st August instant, and produced a very hearty, strong, lively filly, the *counterpart of the sire.* I had begun to suspect that she might *not* be in foal to the chestnut but to some other horse, when I found one full year expire. I am now satisfied the chestnut *is* the sire of the filly. I have understood eleven months to be the ordinary time, though I believe mares have been known to run *twelve* months in foal. I never before heard of *thirteen.* I write for information as well for self as for breeders here generally, to whom the thing is important and new. A reply in your next number will oblige J. Thornton. *Quebec, C. E.* [The period of gestation varies with mares more than in any other domestic animal. According to the observation of M. Teissier, of Paris, in 582 mares, the shortest period was 287 days, and the longest 419 days, making the extraordinary difference of 132 days, and 89 days beyond the usual period of 11 months.]

Berkshire Pigs.—Can I get a good boar and sow pig, Berkshire breed, in Albany, and at what price? E. S. *Pendleton, S. C.* [We know of none in this vicinity.]

Horse Powers.—Could you inform me who makes the best one horse power for threshing purposes, and what price it can be bought for, and what the thresher will cost without the cleaner? Marshall Wilder. *Brattleborough, Vt.* [Wheeler, Melick & Co., R. H. Pease, and Emery & Co. of this city, and G. Westinghouse & Co. of Schenectady, make good horse powers, for one or two horses. The price of a one horse power is about $80, and of the thresher about $40.]

Iron-founder's Sand—*H. E. Russell.* The "burnt sand" in contact with iron castings, has little or no fertilizing power—like any other sand, it is good to mix with clayey soil to render it lighter, but tons not pounds are needed for this purpose.

Wild Stocks—*S. H. Gibbs.* Apples cannot be grafted into any "forest trees," unless those forest trees happen to be wild apple trees—or the crab. The common wild cherry will never succeed as a stock for the cultivated varieties.

White Shanghais.—I noticed an inquiry in the Country Gentleman for White Shangai fowls with blue legs. The gentleman can obtain that breed, that is pure, by forwarding to Seth H. Higgins, Port Byron, N. Y., $2 for a rooster or $3 for a pair.

Angola Rabbits.—I saw an inquiry in your paper for a pair of Angola rabbits. They can be had by addressing Wm. R. Hills, Albany, N. Y.

Notes for the Month.

THE N. Y. STATE AG. COLLEGE.—The trustees of this institution met at Ovid, Seneca co., Sept. 4th—present, Messrs. King, Kelley, Cheever, Johnson, Wager, Williams, Post, Buell and Bacon, and Rev. A. Brown, the Secretary. Several hundred intelligent gentlemen, mostly practical farmers, were in attendance from the counties of Seneca, Cayuga, Tompkins, Schuyler, Yates, Ontario, &c. The trustees proposed to hear suggestions in favor of different locations. The main questions discussed during the evening were in relation to that at Cayuga Lake, near Sheldrake Point, and another at or near the village of Ovid, on the borders of Seneca Lake. Considerations on the part of the former, were offered by Hon. A. Wells, of Tompkins co., and others, and in behalf of Ovid, by Judge Seeley, Mr. Brown, etc. Friday a second session was held, and after a full and free inquiry into the advantages as well as the objections to the proposed locations, the Board decided in favor of the shore of the Seneca Lake, where a farm was selected, containing about 670 acres, extending from the line of the village to the banks of the lake at the steamboat landing, and bounded on one side by the public road from the landing to the village.

The price for this farm in the aggregate was about $43,500; averaging about $65 per acre. There are upon it five dwelling houses, three of them erected within a few years. Two farm houses, though built many years since may answer for the purpose of the farm for some time to come. The barns are quite extensive, a portion of them new or erected the last season. There is a mill privilege with the farm, on which a saw mill is erected and a run of stones also for grinding feed and coarse grain. The farm is admirably watered, and beautifully situated; includes upwards of 100 acres of valuable timber, mostly large and stately oaks, and an excellent limestone quarry, and comprises a great variety of soils.

After this decision, the Board proceeded to an election of officers, which resulted in the unanimous choice of Hon. SAMUEL CHEEVER, (Ex-President of the N. Y. S. Ag. Society,) of Saratoga, as President of the College. Executive and Finance committees were also chosen. The subscriptions in the vicinity of Ovid amount to $47.000.

We congratulate the institution on its selection of Judge CHEMVER as presiding officer. He is a farmer of much experience, and possesses many of those qualities which can but promote the success of the College, and make it of practical benefit to the farmers of the State. We trust it will be enabled to commence operations at an early day, and wish it all the success which so bright a beginning fairly promises.

DEATH OF MR. BECAR.—The New-York papers announce the death of NOEL J. BECAR, at his residence in Brooklyn on the 28th of August. Mr. Becar, it will be remembered, was associated with Col. L. G. MORRIS, in his extensive importations of Short-horn cattle and South Down sheep, beautiful herds and flocks of which were still in his possession at his farm on Long-Island.

☞ Our correspondent, Mr. S. W. JOHNSON, so well-known to our readers by his contributions to the COUNTRY GENTLEMAN, while pursuing his studies at Giesen and Munich, and since his return, has just been appointed to the Professorship of Analytical Chemistry in the new Scientific School connected with Yale College. While we rejoice at his early promotion to so important a position, we can not refrain from the expression of our regret that our own State has not in some way secured his services as Professor of Agricultural Chemistry—a department for which he is admirably qualified by ten years study under the best masters both at home and abroad, as well as by his native love of this peculiar branch of science. With all the talk we have had about agricultural science for so many years, we have not as yet, in this whole country, even one solitary individual who is devoting himself exclusively to this special branch of chemical investigation.

CORN AFTER BUCKWHEAT.—The injurious effects of buckwheat on a succeeding crop of corn, are well known to many farmers, but we witnessed lately an exhibition of these effects, in a more distinct form than we had before seen. A part of the corn field of the present year's growth, was after a crop of buckwheat; the rest after barley, both of which were grown contiguously in the same field. The height of the stalks growing after the barley was at least one foot greater than their height on the portion occupied by buckwheat, and a distinct line of division, formed by this difference in height, extended across the field. This fact is worthy of being borne in mind by those who are devising systems of rotation for their farms.

A CORRECTION—TOO BIG A STORY.—The Ohio Cultivator copies from the proceedings of the Fruit Growers' Society of Western New-York, the statement of Dr. SYLVESTER, of Lyons, as misprinted in those Transactions, that he had known apple orchards that yielded $1000 per acre, without any extra cultivation. The statement actually made by Dr. Sylvester, and the copy furnished the printer, made it only $100 per acre, which at this more moderate amount is equal to the interest on over fourteen hundred dollars per acre. A portion of the Transactions were badly printed, although full corrections were furnished the printers; and we hope the Ohio Cultivator will make the necessary alteration in the figures.

BROOKFIELD TOWN FAIR.—The annual fair of the Brookfield (Madison Co.,) Town Ag. Society is to be held in the village of Clarkville, Oct. 9th and 10th, when about 700 premiums will be awarded on every variety of domestic animals, dairy and household products, fruits and vegetables, sugar, honey, needle-work, tailoring and dressmaking, and all kinds of mechanical labor required by the farmer. The list is, indeed, the most complete of any we have seen, and cannot, we should think, fail to draw out something for exhibition from every family in town. A large portion of the prizes, we are glad to see, are payable in rural publications.

THE AMERICAN INSTITUTE.—The 28th Annual Fair of the American Institute will be held at the New-York Crystal Palace, commencing on the 22d of September, and closing Oct. 25th. The mechanical department will be greatly enlarged, and steam power provided. The Cattle Show will be held in Hamilton Square, on the 14th, 15th and 16th of October. Nearly all the railroad and freight lines leading to New-York, have consented to return goods to the exhibitors free, the freight on which shall have been paid to the Fair.

IMPORTATION ARRIVED.—Dr. WENDELL'S two Short-Horn heifers, the pedigrees of which we gave in a recent number, purchased from Robert Bell, and then on their passage, arrived in this city last week. 'Famous' is about two and a half years old, and 'Agnes' some months her elder. We found the former remarkably good in quality, the latter of unusual size, and both handsome animals, and an acquisition to the stock of the country.

JOHNSON'S NEW WIND POWER.—*Correction.* The post-office address of Mr. Johnson was incorrectly given in the account of his new wind power, which was published in the Co. Gent. for July 17, p. 43, and in The Cultivator for August, p. 260. His address is "M. S. Johnson, Palatine, Cook Co., Ill.," and not *Palestine*, as printed.

The National Exhibition at Philadelphia.—The *Germantown Telegraph* states that the executive committee, as well as the various other committees, are working manfully and earnestly to make this display all that ought to be expected from a National Society, and all that its admirable location ought to give to it. The grounds are now being prepared—considerable grading will be required, and much money must necessarily be expended, not only in that, but in the erection of the numerous edifices, buildings, and sheds that will be required. The banquet hall, which is to accommodate three or four thousand persons—ladies and gentlemen—seated, will be a curiosity in itself; and the banquet, which we are gratified to know is to be prepared by Col. R. B. Jones, of the Exchange Hotel, will be an entertainment, the like of which has never yet taken place in our city. All the arrangements of the entire exhibition will be made on a grand scale, in order to meet the necessities of the occasion. Probably half a million of people will visit the exhibition during its five days of continuance, but every accommodation will be made to meet the emergency. Elevated seats on the ground for some 10,000 persons, will be securely and comfortably arranged.

The Highland and Ag. Society held its meeting this year at Inverness, accounts of which reached us by the last arrival. There appears to have been quite—but not a very—successful show Shorthorns were "not remarkable for either the highest qualities of the breed, or for that uniformity of type which is so essential in a pure stock." The Highland breed was well represented in numbers, but including nothing above average merit except several fine cows and heifers.—The Polled breed was pretty well—Ayrshires very thinly—exhibited. *Horses* were inferior and unequal. In *Sheep* there was a very choice collection of Leicesters shown; a respectable competition in Cheviots; the South-Downs were "more select than numerous." Swine did not apparently appear in as strong numbers as poultry. Plows, grubbers, harrows, turnip cutters, &c., were among the implements, of which there seems to have been a fair assortment, but we notice nothing particularly new.

The "Yorkshire Ag. Society" held its show at Rotherham, Aug. 5. It is spoken of in very high terms, having included nearly all the prize animals of the Royal English Show, and a great many more of a high class belonging to the locality. The Short-horns, indeed, are said to have far exceeded in number and excellence those shown at Chelmsford. In this department the star of the season was Mr. Richard Booth's prize yearling heifer, "Queen of the May," for which, according to report, he had been offered 1500 guineas! Mr. Towneley of Towneley Hall was the most successful and largest exhibitor. Mr. Douglas of Athelstaneford, however, came in for a fair share. Horses were very superior, sheep and pigs excellent, and though the weather was partially unfavorable, the attendance was good.

French Stock Purchases.—In addition to considerable purchases of stock by the French government at the recent exhibition of the Royal English Agricultural Society, it has since procured of the Short-horned breed, one cow and one heifer, from Lieut. Col. Chas. Towneley for four hundred guineas, and one two year old bull, from Col. Cator, at one hundred and fifty pounds; of the Devons, nine cows and three bulls,—average price about thirty pounds each; two bulls of the West Highland breed, one of which was, however, unfortunately drowned in the Clyde; and of the Ayrshire breed, twenty-two cows and heifers, and two bulls. A portion of these were obtained in the West of Scotland, the remainder were the Ayrshire stock kept on the experimental farm at Windsor, in the occupancy of Prince Albert. Besides cattle, there have been forwarded to France, for the French government, sheep and pigs to a considerable amount. Private individuals have also made extensive purchases of Leicester, Cotswold, and Southdown sheep, and pigs of the large and small breeds. The sum expended for the government on stock within one month, will amount to about £3000, and by private individuals to about £2000.

Domestic.—There are 18,000,000 acres of land in Ohio, enclosed with 450,000 miles of fences, at a prime cost of $115,200,000, and at a yearly expense for repairs, &c., of $7,680,000,—of which sum Gen. Worthington calculates that at least one-third, or $2,560,000 might be saved by laws prohibiting domestic animals, and especially hogs and sheep, from running at large.——The Ohio Farmer states that B. B. Groom, Esq., of Clarke county, Ky., sold, a few days ago, 109 head of two-year-old mules at $175 each.——The last Scientific American describes a new cow-milking machine, to work by a crank, illustrating the same with a 5 by 4 inch picture. It suggests the attachment of a music-box to soothe the cow and lull the flies during the operation.——An improved hay-rake is also illustrated, on which the driver rides in a comfortable seat, and which is said to be easy of management and ingenious of construction.——The Ohio Farming and Breeding Company is the name of an association purposing removal to a fine farm in Iowa, where improved stock is to be bred on an extensive scale. Dr. G. Sprague, of Columbus, O., is Superintendent and Secretary, and, with others, has recently made considerable purchases for the company.——The number of horses now in the United States is estimated on the best authority as considerably above five millions, or about one to every five of our human population.——The editor of the New-York Observer speaks in the highest terms of the "Albany" Strawberry, and recommends that it be called "Wilson's Seedling," after its lamented propagator. "It is," he says, "beyond all doubt the most productive variety in cultivation, and is uncommonly hardy. The fruit is large, high-colored, and very firm in pulp, and will bear transportation as a market fruit."——Hon. John A. King, Chairman of the Board of Trustees of the State Agricultural College, gives notice that a meeting of the Board will be held at Ovid on Thursday, September 4th.

Mr. Jonas Webb's Thirteenth Letting of South Down Sheep, *at Babraham, Cambridgeshire, England.*—The annual gathering of agriculturists of Great Britain, and a delegation from France, took place on the 11th of July—a larger attendance than at any previous letting. The sheep were in capital condition, and better than ever before exhibited. The highest priced tup was 150 guineas, $768—taken by the Emperor of France, as was the second one at 131 guineas, $671. Seventy-seven lots were let at the average price of £33 1 4¼, being about £8 higher than last year. The total amount of the letting was £2,546 5, $12,931.25. The constant increase of price at these lettings shows the increased attention to this valuable breed of sheep, and bears testimony to the unexampled skill of Mr. Webb as a breeder.

Mr. Webb is turning his attention to the breeding of Short-Horns, of which he has a fine herd, which attracted much attention.—*Journal N. Y. S. Ag. Society.*

Hen Manure for Wheat.—I will say a few words about hen manure for wheat. I manured a lot with barn-yard and stable manure; not having a sufficient quantity to cover the lot, about Christmas I cleaned the hen-house, and sowed it on that portion where there was no manure, and the effect was powerful. In the spring, when the weather became warm enough for the wheat to grow, it took the lead. I could see the difference in it almost as far as I could see the field. Farmers, build houses for your fowls, and take care of the manure. I am trying it on corn, and perhaps will say something about it this fall. D. Farlow. *New Market, N. C.*

Cattle, &c., Running at Large.—Do the people of this State know that they have no right to let their cattle, sheep, hogs, or geese, run at large on the highways or streets, without a driver, any more than they have to turn them into their neighbors' fields? I believe we are not obliged to make any street fence on our public roads. If we do so, let it be understood it is to keep our animals *in*, and not to keep others' *out*. All animals running at large without a driver are liable to be impounded and made to pay damage. The public have a right of way to pass or repass when they please on any public highway, but if any thing grow on the side of the highway of any value, it belongs to the person owning the adjoining land. I have travelled in Massachusetts for miles where there are no street fences at all, and crops growing close by the side of the road, but no loose animals. I have been annoyed sometimes by leaving a gate open for a few minutes, to have to chase out a lot of hogs or geese from my premises. I should like to see this in print, or something like it, for the benefit of those who do not already know it. This may not, perhaps, apply to all parts of the State. B. *Plattsburgh, N. Y.*

The way to Tether a Cow so that she will not be liable to injury.—Take a tough light pole, ten or twelve feet long, to a blacksmith, and let him bend over each end and rivet fast a hoop of iron and insert into it a swivel ring. Attach a chain with a strap to the cow's horns, of sufficient length to reach the ground when the animal stands up; this lower end to be attached to the swivel on the pole. Fasten to the other end of the pole a chain of any suitable length, with its free end, armed with a wedge-shaped piece of iron 18 inches long, to be driven into the ground with a billet of wood, and your cow can thus be tethered without any danger of entanglement, whilst the pasture will feed one third more,—fences dispensed with, and shrubbery not broken, by being run into when the animal is frantic with flies. A. V. W.

"Foot-Evil" in Cows.—Extract of a letter from Gosport, Ind.: "The best investment I ever made was the $2 investment in the Co. Gent. I have got my money back at least half a dozen times. Occasionally I get two dollars worth of information from one number—at all events I could not afford to do without the information for that sum.

"I have a cow—the largest and finest I ever saw—which has a disease called 'Foot-Evil.' I have resorted to searing with a hot iron rod; made applications of hot tar, etc., etc., but all to no purpose—the disease continues. Can you give me a remedy you can vouch for? or will some of your correspondents who have had experience in this disease, please to say a word for the benefit of a sufferer?" J. R.

Chip Manure for Cabbages.—I raised excellent cabbages with a very little trouble, in this way: I sowed my seed in a small bed, and when it was time to transplant, I prepared my land in the following manner. The land was plowed early in the spring, and when I wished to transplant them, I drew on quite a quantity of well rotted chip manure and spaded it in, and then prepared little hills for the plants, and plastered them in the hill, and they grew very fast, and the leaves were of a dark rich color, and all headed well. I planted a few and manured them with stable manure, and treated them otherwise the same, but those manured with chip manure were much the best. J. P.

A Suggestion for Builders.—The *Scientific American* calls attention to the importance and explains briefly the philosophy of wetting brick when building during warm weather. "Lime mortar only acts as a bond with brick by adhesion, the vehicle being the moisture or water of the mortar. Dry porous bricks at once abstract the moisture from mortar, and it soon evaporates; and thus the binding vehicle between the two is removed. Spring and fall are the best seasons of the year for building brick houses. In warm, dry weather, the moisture of the mortar evaporates too rapidly; and in frosty weather it crystalizes, and when thawed it sweats out. Mortar becomes hard by absorbing carbonic acid from the atmosphere; and it acquires by age the character of stone. Without moisture it will not become hard and solid, but crumble into dust, hence the necessity of preventing the rapid evaporation of moisture in mortar used in buildings of brick or stone."

☞ **The Illustrated Annual Register of Rural Affairs**, for 1857, is now in press and will be issued as early as possible in October. We have expended larger sums for engravings than on either of the previous numbers, and think it cannot fail to equal or surpass them in the character of its contents throughout. They include full and careful chapters on

I. Laying-out and Dividing Farms.
II. Farm Houses, with numerous original plans.
III. Farm Management and Capital.
IV. Farm Implements, very fully treated and copiously illustrated.
V. Fruit Culture, including laying out orchards and gardens.
VI. Ornamental Trees and Plants.
VII. Perennials for Lawns.
VIII. Rock Work and Rustic Structures.
IX. Rural Economy in its various branches.
X. Agricultural Miscellany, &c., &c., &c.

The whole illustrated by upwards of *One Hundred and Twenty Engravings*, and, like its predecessors, comprising in a few pages of concise and practical matter, the gist of many volumes.

Terms:—Per single copy,	Twenty-five cents.
Dozen,	Two dollars.
Hundred,	Fifteen dollars.

Large sales of the Register can be effected in every neighborhood by a little effort, which we will endeavor to render profitable to any who undertake it.

HOPEWEL NURSERIES, FREDERICKSBURG, VA.

THE proprietor of these Nurseries calls the attention of Tree Planters to his large stock of

Fruit and Ornamental Trees, &c., for Fall Planting.

The propitious season has produced finer grown trees than he has ever before offered. He would call especial attention to his list of SOUTHERN APPLES, which he grows in large quantities—his present stock is about 90,000, embracing a large number of Virginia and North Carolina sorts, keeping the whole winter, and equal in size and quality to the most popular northern sorts, which ripen here, with few exceptions in the fall.

Also a large stock of STANDARD AND DWARF Pears, Peaches, Apricots, Nectarines, Quinces, Grapes, Strawberries, Asparagus Roots, Ornamental Trees and Shrubs, Evergreens, Roses, Greenhouse Plants, &c.

The facilities for shipping are equal to any in the country.

A New Catalogue just issued, and sent to all applicants.

Sept. 25—w5t.—m1t * H. R. ROBEY.

FOR SALE

ON REASONABLE terms, the Imported Short-Horn, pure-blooded DURHAM BULL, SQUIRE GWINNE 2nd, (1001) A. H B. Bred by J. S. Tanqueray, Middlesex, England. He is four years old the present month, weight about twenty hundred lbs. For pedigree and further particulars see 2nd vol. American Herd Book.

Those wishing a first-class Bull, should apply soon to the subscriber at Clinton Corners P. O., Duchess Co., N. Y.

Sept. 18—w2tm1t* A. M. UNDERHILL.

Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

WILLIAM DEERING & CO.
Premium Agricultural Works, Albany, N. Y.

Dec. 27—w&mtf

AGRICULTURAL BOOKS.

C. M. SAXTON & CO.,

140 Fulton Street, New-York,

Publish the following Books for the Country.

And will send them, Free of Postage, to any part of U. S. upon receipt of Price.

1.	The Stable Book—the best work on the Horse.	$1 00
2.	The Horse's Foot, with directions How to Keep it Sound; paper, 25 cts ; cloth,	50
3.	Browne's Am. Bird Fancier; paper, 25 cts., cloth,.	50
4	Dadd's Am. Cattle Doctor, cloth,	1 00
5.	Dana's Muck Manual, cloth,	1 00
6.	Dana's Prize Essay on Manures,	25
7.	Stockhardt's Chemical Field Lectures,	1 00
8	Blake's Farmer at Home,	1 25
9.	Buist's Am. Flower Garden Directory,	1 25
10.	Buist's Family Kitchen Gardener,	75
11.	Norton's Scientific and Practical Agriculturist,	60
12.	Johnston's Catechism of Agricultural Chemistry (for schools),	25
13.	Johnston's Elements of Agricultural Chemistry and Geology,.	1 00
14.	Johnston's Lectures on Agricultural Chemistry and Geology,	1 25
15.	Downing's Landscape Gardening	3 50
16.	Fessenden's Complete Farmer and Gardener,	1 25
17.	Fessenden's Am Kitchen Gardener, cloth,.	50
18.	Nash's Progressive Farmer,	60
19	Richardson's Domestic Fowls,	25
20.	Richardson on the Horse—Varieties, Breeding, &c.,	25
21.	Richardson on the Diseases and Management of the Hog,	25
22.	Richardson on the Destruction of the Pests of the Farm,	25
23.	Richardson on the Hive and Honey Bee	25
24.	Milburn and Stevens on the Cow and Dairy Husbandry,	25
25.	Skinner's Elements of Agriculture,	25
26.	Topham's Chemistry Made Easy, for the use of Farmers,	25
27.	Allen's Treatise on the Culture of the Grape,	1 00
28.	Allen on the Diseases of Domestic Animals,	75
29.	Allen's American Farm Book,	1 00
30.	Allen's Rural Architecture,	1 25
31.	Pardee on the Cultivation of the Strawberry, &c.,.	60
32	Pedder's Farmer's Land Measurer,	50
33.	Phelps' Bee-keeper's Chart,	25
34.	Guenon's Treatise on Milch Cows; paper, 38 cts., cloth.	63
35.	Gunn's Domestic Medicine—a book for every married man and woman,	3 00
36.	Randall's Sheep Husbandry,	1 25
37.	Youatt, Randall, and Skinner's Shepherd's Own Book,	2 00
38.	Youatt on the Breed and Management of Sheep,.	75
39.	Youatt on the Horse,	1 25
40.	Youatt, Martin and Stevens, on Cattle.	1 25
41.	Youatt and Martin on the Breeds and Management of the Hog,	75
42.	Munn's Practical Land Drainer,	50
43.	Stephens' Book of the Farm, complete—450 illustrations,	4 00
44.	The American Architect, or plans for country dwellings,	6 00
45.	Thaer, Shaw and Johnson's Principles of Agriculture.	2 00
46.	Smith's Landscape Gardening, Parks and Pleasure Grounds,	1 25
47.	Weeks on the Honey Bee; paper 25 cents, cloth,.	50
48.	Wilson on Cultivation of Flax,	25
49.	Miner's American Bee-keeper's Manual,	1 00
50.	Quinby's Mysteries of Bee-keeping,	1 00
51.	Cottage and Farm Bee-keeper,	50
52.	Elliott's American Fruit Growers's Guide,	1 25
53.	The American Florist's Guide,	75
54.	Every Lady her own Flower Gardener; paper 25 cents, cloth,	50
55.	The Am. Rose Culturist; paper, 25 cts., cloth,	50
56.	Hoare on the Cultivation of the Vine,	50
57.	Chorlton's Cold Grapery, from direct American Practice,	50
58.	Saxton's Rural Hand Books, 3 vols,	3 75
59.	Bement's Rabbit Fancier; paper, 25 cts., cloth,	50
60.	Reemelin's Vine Dresser's Manual,	50
61.	Neil's Fruit, Flower, and Vegetable Gardener's Companion,	1 00
62.	Browne's American Poultry Yard,	1 00
63.	Browne's Field Book of Manures,	1 25
64.	Hooper's Dog and Gun,	50
65.	Skillful Housewife, paper,	25
66.	Chorlton's Grape Grower's Guide; paper, 50 cts, cloth,	60
67.	White's Gardening for the South,	1 25
68.	Eastwood's Manual for Cultivating the Cranberry,.	50
69.	Johnson's Dictionary of Modern Gardening,	1 50
70.	Persoz on the Culture of the Vine,	50
71.	American Agriculturist, 10 vols	12 50
72.	Boussingault's Rural Economy,	1 25
73.	Thompson's Food of Animals; paper. 50 cts., cloth,	75
74.	Richardson on Dogs—their Origin, Varieties, &c.; paper, 25 cts, cloth,	50
75.	Liebig's Familiar Letters to Farmers on Chemistry; paper. 25 cts., cloth,	50

Sept. 25—w1tm1t

Newman's Thornless Blackberry.

I HAVE a few hundred plants of this new variety of Blackberry, (pronounced by the N. Y. Farmers' Club to be far superior in excellence to the New Rochelle berry.) which I will dispose of the coming season at the following prices: per Dozen, $6—per Hundred, $25.

Orders should be accompanied by the money and sent in early, directed to the subscriber at Milton, Ulster Co., N. Y.

Sep. 4—w4tm1t* JONAS NEWMAN.

Cider Mills and Presses.

HICKOK'S AND EMERY'S PATENTS, for sale by A. LONGETT, 34 Cliff st., corner of Fulton, New-York.

Aug. 14—w6tm2t.

Hickok's Patent Cider Mill and Press.

PERSONS wishing to purchase this *valuable cider-mill*, will please send in their orders early, as we could not supply the demand last year. It has *improvements* over *last year's mill.* Price $40.

GRIFFING BROTHER & CO.,
Aug. 21—w&m3m 60 Courtlandt st., New-York City.

E. G. COOK,

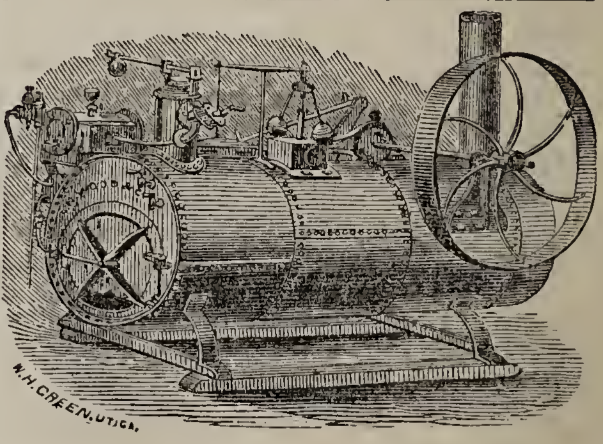
Belleville, Jefferson County, N. Y.

BREEDER of Devon Cattle—French, Spanish, Leicester, South-Down and Cross-Breed Sheep,—Suffolk Pigs and Brahma Fowls. July 17—weow4tm3t*

FARM WANTED.

WANTED—A small farm of between 60 and 80 acres, (within as many miles of New-York City preferred,) Please address S. P. MARVIN, Chester, Orange Co., N. Y., stating terms, &c., &c. Possession not wanted till spring.

Aug. 14—w4tm2t


N. H. GREEN, UTICA.

PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

PRESENT LIST OF PRICES.		*Weight.*
2½ horse power,	$225	1500
3 do	$275	1800
4 do	$340	2000
6 do	$520	3500
8 do	$680	4500
10 do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.

Jan. 31—wtf—May 22—mtf A. N. WOOD & CO.

CALIFORNIAN EVERGREENS.

WE HAVE a small stock of the following fine Californian trees, which we offer at the annexed prices. They are all kept in pots for their greater safety in transportation, and can be forwarded at any moment.

Prices.	each.	doz.
Sequoia gigantea (Wellingtonia gigantea) the celebrated "big tree," 2 year Seedlings, 12 inches (strong),	$3.00	$24.00
Sequoia gigantea, 2 yrs. Seedlings, 6 inches,	2.00	18.00
Taxodium Sempervirens, the "Red Wood," 2 to 3 feet.		6.00
Taxodium Sempervirens. 1 to 2 ft.,		5.00
Pinus Sabiniana, 1 year Seedlings,	2 00	12.00
" Benthamiana "	50	5,00
" Jeffreyii "	2 00	
" Lambertiana "	2.00	
" Monticola "	2 00	
" Tuberculata "	3 00	
" Frazeri "	2 00	
" Californica "	2,00	

ELLWANGER & BARRY,
Mount Hope Nurseries,
Aug. 28—w1tm1t. Rochester, N. Y.

THE EXCELSIOR HORSE POWER, THRESHER AND SEPARATOR, is acknowledged to be the best now made. Price, $160 for two-horse machine complete—$128 for one-horse machine complete. Manufactured by
RICH'D H. PEASE,
Sept. 4—w&m1t 369 & 371 Broadway, Albany, N. Y.

EVERGREENS, &C.

THE undersigned respectfully calls the attention of the trade to the following:—

20,000 Norway Spruce, three to four inches, bedded the past Spring. They will move with abundance of fibrous roots, and will transport safer, and grow freer than larger. $10 per thousand—$90 per ten thousand.

50,000 Norway Spruce, four to six inches, bedded the past Spring, equally well rooted as the above, $12 per thousand.

50,000 Chinese Arborvitæ (*Biota Orientalis*) one year Seedlings, $12 per thousand. This is cheaper than they can be purchased in Europe.

The above are well worth the attention of Nurserymen; through the fall—the plants being perfectly at rest and the atmosphere cool—they will transport West and South much safer than at any other season.

Plums, one year, leading varieties, on Plum Stocks, $20 per hundred.

20,000 Currants, Red Dutch, Red Grape, White Dutch, White Grape, Victoria, Black Naples, &c., strong plants, $6 to $10 per hundred.

25,000 Gooseberries, the large English varieties, strong, $8 per hundred.

Cryptomeria Japonica Seedlings, Thuja plicata Seedlings, &c. Pear seed, Mahaleb Seed, Plum Stones, &c.

Catalogues can be had on application.

JOHN SAUL,
Sept. 11—weow3t Washington City, D. C.

THE EXCELSIOR HORSE POWER, THRESHER AND SEPARATOR, is acknowledged to be the best now made. Price, $160 for two-horse machine complete—$128 for one-horse machine complete. Manufactured by
RICH'D H. PEASE,
Sept. 4—w&m1t 369 & 371 Broadway, Albany, N. Y.

Willis' Patent Stump-Puller.

THIS is a Machine of vast power; and for extracting stumps, large or small, it has no equal. It will take out from 12 to 20 an hour, without difficulty, and with but a

SINGLE YOKE OF OXEN.

It is also the best Machine yet invented for

MOVING BUILDINGS.

All progressive men who desire to bring their waste lands at once into market, or a state of fertility, are invited to address or call on the patentee, WM. W. WILLIS, Orange, Mass., or John Raynolds, at C. M. Saxton & Co.'s, No. 140 Fulton-st., N. Y., where a working model may be seen, and other information obtained. June 12—w&mtf

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THE EXCELSIOR HORSE POWER, THRESHER AND SEPARATOR, is acknowledged to be the best now made. Price, $160 for two-horse machine complete—$128 for one-horse machine complete. Manufactured by
RICH'D H. PEASE,
Sept. 4—w&m1t 369 & 371 Broadway, Albany, N. Y.

New-Canaan Nurseries,

(3½ *miles from Norwalk Rail-Road Depot.*)

THE subscribers are prepared to offer the largest and best assortment of NURSERY STOCK the coming season, they have ever had, consisting partly of

50,000 Apple trees, of the most approved varieties and thrifty growth.

40 000 Peach trees, healthy, hardy and thrifty.

Cherry trees.

Pear trees, Standard and Dwarf.

Plum, Apricot and Quince trees.

Besides the smaller fruits, such as Raspberries, Currants, Gooseberries, Grape-vines, &c.

Also—a general assortment of EVERGREEN and other ornamental trees.

N. B. We would particularly invite the attention of Wholesale Dealers and others to our stock of Apple and Peach trees.

STEPHEN HOYT & CO.
Aug. 28—w8tm1t New-Canaan, Ct.

THE EXCELSIOR HORSE POWER, THRESHER AND SEPARATOR, is acknowledged to be the best now made. Price, $160 for two-horse machine complete—$128 for one-horse machine complete. Manufactured by
RICH'D H. PEASE,
Sept 4—w&m1t 369 & 371 Broadway, Albany, N. Y.

A Five Dollar Library for Farmers.

☞ *Sent by Mail Free of Postage.* ☜

The American Farm Book,	$1 00
Diseases of Domestic Animals,	0 75
Browne's Field Book of Manures	1 25
The Stable Book,	1 00
Nash's Progressive Farmer,	0 60
Munn's Land Drainer,	0 50

This Library is so arranged as to supply the greatest amount of practical instruction without needless repetition.

At least this much of an Agricultural Library should be in the hands of every farmer in America.

Our Descriptive Catalogue of Agricultural Books sent to any who will favor us with their address.

C. M SAXTON & CO.,
Agricultural Book publishers, 140 Fulton St.,
Aug 28—weow2t—m1t. New-York.

Bundy's Patent Potato Digger.

WE NOW offer this valuable *labor-saving* implement to the farmer. Price $6.

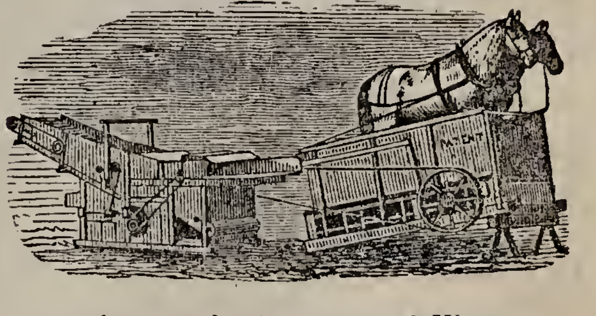
GRIFFING BROTHER & CO.,
Aug. 21—w&m3m 60 Courtlandt-st., New-York City.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,

GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.



Schenectady Agricultural Works.

IN consequence of the increased demand for their Improved RAILWAY HORSE POWERS,
THRASHERS AND SEPARATORS,
Combined THRASHERS and WINNOWERS.
Circular SAWING MACHINES and CLOVER HULLERS.

The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly. G. WESTINGHOUSE & CO.

Schenectady, March 6, 1856—w&mtf

FRUIT AND ORNAMENTAL TREES.

Ellwanger and Barry

HAVE the pleasure of announcing to their customers and the public in general, that they have now on their grounds for the ensuing fall trade, a very large and complete stock of Fruit and Ornamental Trees, embracing

Standard and Dwarf Apple Trees.
Standard and Dwarf Pear Trees.
Standard and Dwarf Cherry and Plum,
Peaches. Apricots, Nectarines, &c.

QUINCES—Large Orange, fine grafted plants.

GOOSEBERRIES—of the best sorts, a large stock.

CURRANTS—including the newest and finest sorts, upwards of 300,000 plants.

RASPBERRIES—including *Brinckle's Orange* and several new and fine everbearing sorts.

BLACKBERRIES—High Bush and New Rochelle or Lawton, a large stock.

Besides Walnuts, Chestnuts, Filberts, and all other fruit usually cultivated.

GRAPES—Native and Foreign, in large quantities.

STRAWBERRIES—all the best new and old sorts.

RHUBARB. ASPARAGUS, &c.

Ornamental Trees, Shrubs, &c.

Deciduous Ornamental Trees, for streets, parks, lawns, cemeteries, &c.

Flowering Shrubs.

Roses—an immense collection, old and new, covering upwards *five acres* of land.

Evergreen Trees—including *half a million of Norway Spruce* of all sizes.

Weeping Trees—everything desirable.

Double Dahlias and Bulbous Roots.

Hedge Plants of all sorts.

Stocks and Seedling Plants for Nurserymen.

Green-House and Bedding-out Plants, a full assortment.

Nurserymen and Dealers dealt with on the most liberal terms, and amateur's orders attended to with the greatest care. Packing done in the most thorough and skillful manner and with the best material. For full particulars we refer to special advertisements, and to the following catalogues sent gratis to all who apply and enclose a stamp for each:

No 1. Descriptive Catalogue of Fruit.
No. 2. Descriptive Catalogue of Ornamental Trees, Shrubs, Roots, &c.
No. 3. Catalogue of Dahlias, Green-House and Bedding Plants.
No. 4. Wholesale, or Trade List.
No. 5. Supplemental Catalogue of Fruits.

ELLWANGER & BARRY,
Mount Hope Nurseries,
Rochester, N. Y.

Aug. 28—w1tm1t

TO NURSERYMEN.

STOCKS AND SEEDLING TREES.

WE SOLICIT the attention of the Trade to the following articles, which we are prepared to furnish this fall at the annexed low rates—all are exceedingly vigorous and well grown.

	per 1000
Magnolia Acuminata, 3 year Seedlings, 2 feet, ...	$50 00
“ “ “ “ 1 “	20 00
Elm, American, 2 year Seedlings....................	15 00
Horse Chestnut, 3 “ “	60 00
“ “ 2 “ “	40 00
Oak, White American, 3 years,..........................	20 00
“ Red “ 3 “	20 00
Butter Nut, 3 year Seedlings, 2 to 3 feet, ...	40 00
Black Walnut, 3 yr. “ 2 to 3 “	40 00
Maple, Silver, 2 “ “	12 00
“ Scarlet, 2 “ “	20 00
“ Sugar, 1 “ “	6 00
“ “ 1 to 2 feet, ...	30 00
Larch, European, 2 “	50 00
Catalpa, “ 1 “	40 00
Mahonia, or Ashberry, one of the finest Evergreen Shrubs, 2 year Seedlings,......................	50 00
“ 1 “ “	20 00
Plum Seedlings, 1 year, native,.........................	10 00
Pear “ 1 “	10 00
Cherry, Mazzard, 1 “	4 00
“ Mahaleb, strong,.....	15 00
Manetti Rose Stocks, strong,..........................	40 00

For further particulars we beg to refer to our wholesale Catalogue, sent gratis to all who apply and enclose a stamp.

ELLWANGER & BARRY,
Mount-Hope Nurseries,
Rochester, N. Y.

Sept. 4—w&m1t

YALE SCIENTIFIC SCHOOL.

CHEMISTRY AND NATURAL SCIENCE.

LECTURES.

FIRST TERM.

Geology—Prof. JAMES D. DANA.
General Chemistry—Prof. BENJAMIN SILLIMAN, JR.
Analytical Chemistry—Prof. SAMUEL W. JOHNSON.

SECOND TERM.

Chemistry of Building Materials—Prof. BENJAMIN SILLIMAN, JR.
Chemistry, and General Principles of Agriculture—Prof. JOHN A. PORTER.
Meteorology—Prof. GEORGE I. BRUSH.

THIRD TERM.

Mineralogy—Prof. JAMES D. DANA.
Chemistry applied to the Arts—Prof. BENJAMIN SILLIMAN, JR.
Organic Chemistry—Prof. JOHN A. PORTER.

ASSISTANT INSTRUCTORS.

Prof. CHARLES H. PORTER, HENRY M. SEELEY.

ENGINEERING.

Engineering—Prof. WILLIAM A. NORTON.

ASSISTANT INSTRUCTORS.

ALONZO T. MOSMAN, LOUIS BAIL.

The instruction in Engineering extends through the whole year.

Laboratory practice in Analytical Chemistry throughout the year.

The Lectures of Professor OLMSTED on Natural Philosophy, Astronomy and Meteorology, in the Academical department, are also open to members of the Scientific School.

Assays, and Chemical and Geological investigations generally, will be undertaken on reasonable terms.

For further information, address JOHN A. PORTER, Dean of the Faculty. Aug 29—w&m1t.

Evergreen Trees at Low Prices.

MESSRS. ELLWANGER & BARRY solicit the attention of Nurserymen, Planters and Dealers in Trees, to their immense stock of Evergreens, by far the largest ever offered in the United States They are prepared to furnish the following at the extremely low prices annexed.

☞ All frequently transplanted, and therefore finely formed and well-rooted.

	per 100	per 1,000
Norway Spruce, 5 feet	$60 00	$350 00
“ “ 4 “	40 00	300 00
“ “ 3 “	25 00	225 00
“ “ 2 “	18 00	150 00
“ “ 1½ “	15 00	120 00
“ “ 1 “	10 00	70 00
“ 4 years seedlings, 2 years transplanted,............................		30 00
“ 1 year from seed bud,............		10 00
Scotch Pine, 12 inches, ...	10 00	80 00
“ “ 9 “	8 00	60 00
Austrian Pine, 10 to 12 inches,.........	12 00	90 00
“ “ 6 to 9 “	10 00	80 00
Arbor Vitæ Siberian, 3 feet, beautiful plants,...........................	40 00	
“ “ “ 2 “ “	30 00	
“ “ American, bushy, for hedges 2-2½ feet,......................	8 00	60 00
“ “ “ “ 1½ ft.	5 00	40 00

“ Golden, a beautiful tree, 1½ to 2 feet, $9 per dozen.

	per doz.
Himalayan Spruce (Abies Morinda) 2 to 3 feet,......	$10 00
Pinsapo Spruce (A. Pinsapo) fine broad plants, 10 inches high,....	9 00
Chili Pine (Auracaria imbricata) in pots, 12 to 18 in.	9 00
Deodar Cedar, 2 to 3 feet, beautiful plants,...........	9 00
African or Silver Cedar (C. Africana, or Argentea) beautiful, 1½ to 2 feet (more hardy than Deodar)..	9 00
Japan Cedar. (Cryptomeria) beautiful Seedlings in pots, 3 feet,....................................	10 00
Funebral Cypress, (Cupressus Funebris) in pots, 1 ft.,.	5 00
Twisted or Bhotan Cypress (C. Torulosa) in pots, 1 ft.	4 00
Yew English, 1½ to 2 feet,...............	4 00
“ “ 1 “	3 00
“ “ 6 inches,.........................	2 00
“ Golden (Elegantissima) 9 to 12 inches, ...	5 00
“ Irish or upright, 1½ to 2 feet,....................	5 00

“ “ “ 1 foot, $3 per doz.—$18 per 100.
“ “ “ 6 in , $2 per doz.—$12 per 100.

For further details we refer to our wholesale Catalogue, sent gratis to all who apply and enclose a stamp Address

ELLWANGER & BARRY,
Mount-Hope Nurseries,
Rochester, N. Y.

Sept. 4—w&m1t

Short-Horn Bull for Sale.

BEAUFORT, red and white roaned, calved Sept. 7th, 1855, got by imported Bates Bull Lord Ducie,* (13181) out of Daisy 7th by Duke, 444 A. H. B—a son of Mr. Vail's imported Duke of Wellington (3654)—G. D. Daisy 4th by imported Wildame Bull Prince, 841 A H. B., G. G. D. Daisy bred by Gen. Van Rensselaer and got by President (4750)—Active by imported Washington (1566);—imported Pansy by Blaise (75);—Primrose by Charles (127)—by Blythe Comet (127)—by Prince (531)—by Patriot, (486) &c., &c. Price $200.

Beaufort is large for his age, is in fine order, and is a beautiful animal.

Also several very fine heifers, got by imported Lord Ducie,* (13151); and five cows of very superior characters and pedigrees, all thorough-bred. Prices ranging from $200 to $500 each. DR. HERMAN WENDELL,

Albany, July 31, 1856—w&mtf

Short-Horn Durham Cattle and Leicester Sheep.

To the Breeders of North America.

MR. RALPH WADE Jr., having for several years reserved his Breeding Stock for the purpose of taking advantage of his various importations,

Will on the 15th October, at Eleven o'clock,

Offer for sale their increase at his farm, near Cobourg, C. W. To those unacquainted with his stock, he would merely remark that they have appeared extensively as prize takers at the Provincial Exhibitions of Upper and Lower Canada, New-York State, and elsewhere, and that no pains or expense has been spared to render the Herd equal to any thing to be found on the Continent. The Cattle consist of pure Durham Bulls and Heifers of various ages and pedigrees, while the Sheep are imported from the best stocks in England. To save trouble the lots will be set up at a moderate upset price, beyond which no reserve will be made. A few fine Grade Cows, Heifers and Horses will also be offered.

The place of sale is situate 4 miles equi-distant from Port Hope and Cobourg, either of which places can be reached by the daily Ontario steamers. Cobourg, July 31—w1tm2t

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Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep, French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan. 1—w&m1y*

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

Pure Bred Suffolk Pigs.

THE subscriber has for sale a few very choice Pure-blooded Suffolk Pigs, bred from stock imported by Sol. W. Jewett, Esq. E. MARSHALL,
July 10—w&mtf Poughkeepsie, N. Y.

For Wheat and Grass Land.

THE LODI MANUFACTURING COMPANY are preparing, and have now for sale, to use upon winter grain and grass, a large quantity of

TAFEU,

Every 100 lbs. of which they will warrant to be composed of
70 lbs. of dried night soil, screened through a ¼ inch screen,
25 lbs. No. 1 Peruvian Guano, and
5 lbs. of calcined plaster, and nothing else.

This article we desire to have tested along side of any other fertilizer in market at the same cost, believing that it is fully equal, if not superior, to any other.

Price $35 per ton, delivered on board of vessel or rail road in the city of New-York.

Also, POUDRETTE, in large or small quantities, constantly on hand, and ready for delivery at the usual price, $1 50 per bbl., for any quantity over 7 bbls.

☞ The L. M. Co. have been engaged over 17 years in the manufacture of Poudrette—have $100,000 permanently invested in the business, and have purchased, for 5 years to come, the entire monopoly of all the night soil from the city of New-York, and are therefore deeply interested in the reputation of their manufactures. Pamphlets will be sent gratis to any one applying to the

LODI MANUFACTURING CO,
Aug. 14—w8tm2t 60 Cortland-st., New-York.

BULBOUS FLOWER ROOTS.

WE HAVE now on hand a large stock of choice Bulbs, and are receiving a new invoice from Holland, consisting of the finest

HYACINTHS, Double and Single.
TULIPS of all the classes.
CROWN IMPERIALS.
CROCUS, JONQUILS, NARCISSUS.
JAPAN and other LILLIES.
GLADIOLUS, a superb collection of new and all the older sorts, &c., &c., &c.

We are prepared to furnish all, at low rates, in large or small quantities, and solicit orders during the month of September, before the busy season opens.

☞ Priced Catalogues forwarded *gratis.*

ELLWANGER & BARRY,
Mount Hope Nurseries,
August 28—w1tm1t. Rochester, N. Y.

To Farmers and Manufacturers.

The U. S. Flax and Hemp Co., No. 28 Pine-st., New-York,

MANUFACTURE the economical and yet successful Flax and Hemp Machines, and are prepared to fill orders for the different sizes of Hand and Power Flax and Hemp Brakes and Scutches made by them, for Mill and Plantation use, and sold with the fullest guarantee as to durability and performance.

Sixty tierces prime Flax Seed, selected for sowing, fo sale. Orders must be directed to E. F. HOVEY, at the Depot of the Company, 28 Pine Street. Refer to

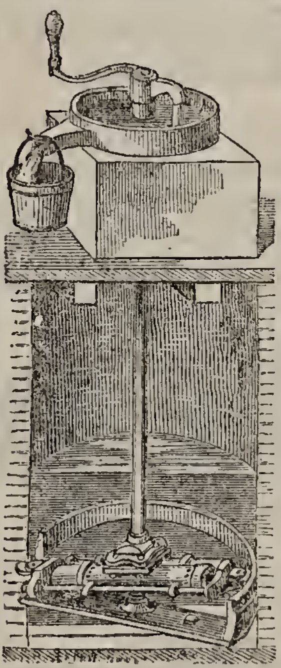
EDW. S. GOULD,
July 10—w1tm5t* 17 William-st., New-York.

Lindsey's Double Acting

ROTARY FORCE AND LIFT PUMP.

THIS pump has just been patented in AMERICA and ENGLAND, and far excels any pump heretofore invented; its peculiarities are *simplicity, power* and *cheapness.* Its simplicity: there is nothing about it but iron and cast metal, and it can be taken apart and put up by any one, and will last for an age. It has the power to raise water HUNDREDS OF FEET. This pump is from 24 to 30 inches in diameter and must set in the well or water. Water rises in it by hand 100 feet per minute! For cheapness: a No. 1 pump (for all ordinary purposes) complete, and fifty feet of pipe, costs but $30! The handle at the top, turns the pipe and pump, and every revolution fills the cylinder twice, affording an abundant supply of water with the least possible expense and labor. It is peculiarly adapted to DEEP WELLS, RAILROAD STATIONS, MINING AND MANUFACTURING PURPOSES. This pump does not throw water, and is guarded against freezing and rust. Practical and scientific men pronounce it as without an equal, for all that is here claimed for it. The "Scientific American," after seeing it in operation, says: "This pump is very simple in construction, not liable to get out of order, durable, easily operated and economical; we regard it as an excellent improvement." Circulars, with an accurate drawing and full description, sent free of charge to all parts of the country. No. 1, has a one inch pipe; No. 2, 1¼ inches; No. 3, 1½ inches; and the prices, with 50 feet of pipe, **$30, $42,** and **$54**; the No 2 and 3 are designed for *very deep wells, railroad stations, &c.,* where much water is required. The subscriber is the general agent for the sale of these pumps to all parts of the world, and EXCLUSIVE AGENT FOR NEW-YORK. Orders must be accompanied by the CASH, and should be explicit as to the kind of pump wanted, depth of well, shipping address, &c. They will meet prompt attention. A pump and pipe weighs about one hundred and seventy pounds. No charge for shipping or cartage. Wells over fifty feet should have extra gearing, which costs $3. JAMES M. EDNEY,

Commission Merchant, 56 John-Street, N. Y.



For sale also by H. LINDSEY, Inventor, Asheville, N. C.
July 3—weow2tm6t

Artcher & Co.'s Tile Works,

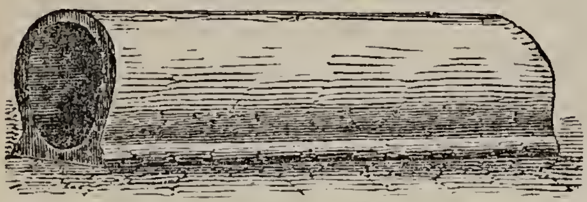
Near the Orphan Asylum, on the Western Plank Road—Office 63 Quay-street, near the Steam-boat Landing.

THE subscribers are prepared to furnish Drain Tile of all sizes and patterns, and warranted superior to any made in this country. Hard burnt and perfectly sound. On a large order a liberal discount will be made.

HORSE-SHOE TILE, 14 INCHES LONG.

2½ inch calibre,	$12	per 1000	pieces.
3½ do	15	"	"
4½ do	18	"	"
5½ do	40	"	"
6½ do	60	"	"
8 do	80	"	"

SOLE-TILE, 14 INCHES LONG.



2 inch calibre,	$12	per 1000	pieces.
3 do	18	"	"
4 do	40	"	"

Orders from all parts of the Union thankfully received and promptly attended to. Cartage free. Buyers are particularly requested to examine the article at their office, 63 Quay street, before purchasing elsewhere. Address

J. ARTCHER & CO., Albany, N. Y.

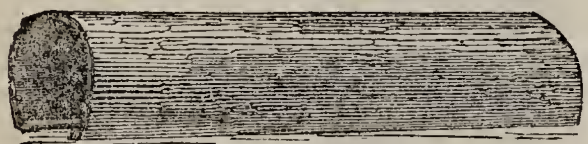
August 23—w&m1f

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

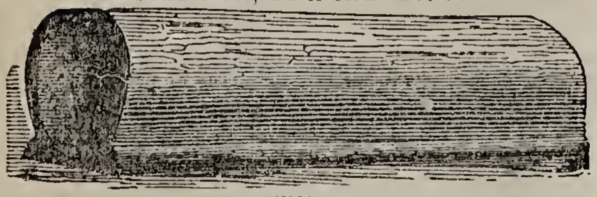
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

2½ inches calibre,	$12	per 1000
3½ " "	15	"
4½ " "	18	"
5½ " "	40	"
8 " "	80	"

SOLE TILE, 14 INCHES LONG.



PIECES.

2 inches calibre,	$12	per 1000.
3 " "	18	"
4 " "	40	"

Also on hand 6 inch calibre Octagon pipe, $20 per 100, and 8 inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Late BABCOCK & VAN VECHTEN,
Aug. 14—w&m3ms. Albany, N. Y.

RICH'D H. PEASE, Agent,
Excelsior Agricultural Works, Warehouse and Seed Store,
359 & 371 Broadway, Albany, N. Y.

Fresh Imported Hyacinths, Tulips, &c.

THE subscribers have just received from the leading Florists in Holland, an unusually fine and extensive assortment of Double and Single Hyacinths, Tulips, Polyanthus Narcissus, Double Narcissus, Jonquilles, Crocus, Crown Imperials, Fritillarias, Gladiolus, Iris, Ixias, Lilies, Arums, Anemones, Ranunculus, Colchicums, Snowdrops, Aconites, Oxalis, Lachenalias, Amaryllis, Early Roman Narcissus, &c., &c., to which they invite the attention of amateurs. Retail Descriptive Catalogues, with directions for culture, furnished applicants enclosing a stamp for return postage.

Dealers and Nurserymen supplied in quantities at as low rates as usually paid for the refuse bulbs from auction.

A good assortment of Hyacinth Glasses, Fancy Crocus Pots, &c., &c. JAMES M. THORBURN & CO.,
Aug. 28—weow6tm3t 15 John-st., New-York.

THE EXCELSIOR HORSE POWER, THRESHER AND SEPARATOR, is acknowledged to be the best now made. Price, $160 for two-horse machine complete—$128 for one-horse machine complete. Manufactured by

RICH'D H. PEASE,
Sept. 4—w&m1t 369 & 371 Broadway, Albany, N. Y.

A FARM FOR SALE.

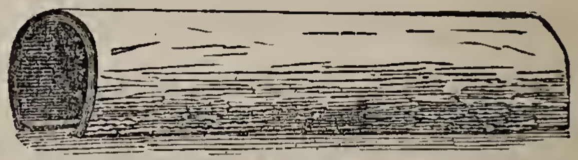
FOR SALE, at $55 per acre, a farm of about 135 acres, of which over 30 are well timbered, situated in the town of Camillus, Onondaga County, 2 miles from Camillus Village, on the Central R. R. 6 miles from Syracuse, and a short distance from the Erie Canal. Churches and mills of all kinds near at hand. Excellent markets for all kinds of farm produce, within a short distance. For further particulars as to terms of payment, &c., address the subscriber at Belle Isle P. O., Onondaga Co., N. Y., or call upon him on the premises, or in his absence upon JONATHAN WHITE, Belle Isle.

Aug. 14—weow3t—m2t HAROLD M. WHITE.

Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

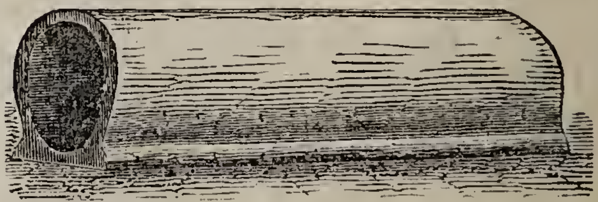
HORSE SHOE TILE 14 INCHES LONG.



PIECES.

4½ inches calibre,	$18 per 1000
3½ inches calibre,	15 per 1000
2½ inches calibre,	12 per 1000

SOLE TILE 14 INCHES LONG.



PIECES.

4 inches calibre, at	$40 per 1000
3 inches calibre, at	18 per 1000
2 inches calibre, at	12 per 1000

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchant's, 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that tile from his establishment obtained the first prizes at the Albany County, and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts will be thankfully received and promptly attended to. Address JOHN APPLETON,
195 Washington-st., Albany, N. Y.

Sept. 11—weow4tm2m

Farm Lands for Sale.

THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL OVER

Two Million of Acres of Farming Lands,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE lands were granted by the Government, to aid in the construction of this Railroad, and include some of the richest and most fertile Prairies in the State, interspersed here and there with magnificent groves of oak and other timber. The Road extends from Chicago, on the North-East, to Cairo at the South and from thence to Galena and Dunleith, in the North-west extreme of the State,and as all the lands lie within fifteen miles on each side of this Road, ready and cheap means are afforded by it for transporting the products of the lands to any of those points and from thence to Eastern and Southern markets. Moreover, the rapid growth of flourishing towns and villages along the line, and the great increase in population by immigration, etc., afford a substantial and growing home-demand for farm produce.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc

Economy in cultivating and great productiveness are the well known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly breken sod, usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very *large profits*. A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to 2.50 per acre. By judicious management, the land may be plowed and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market.

Bituminous coal is mined at several points along the Road, and is a cheap and desirable fuel. It can be delivered at several points along the Road at $1 50 to $4.00 per ton ; Wood can be had at the same rates per cord.

Those who think of settling in Iowa or Minnesota, should bear in mind, that lands there, of any value, along the water courses and for many miles inland, have been disposed of;—that for those located in the interior, there are no conveniences for transporting the produce to market, Railroads not having been introduced there. That to send the produce of these lands, one or two hundred miles by wagon to market, would cost much more than the expense of cultivating them; and hence, Government lands thus situated, at $1.25 per acre, are not so good investments as the land of this company at the prices fixed.

The same remarks hold good in relation to the lands in Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons, or interrupted water communications, increases the expenses of tranportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in cost of transportation, especially in view of the facilities furnished by this Road, and others with which it connects, the operations of which are not interrupted by the low water of summer, or the frost of winter.

PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for Deeds may be made during the year 1856, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract.

Interest will be charged at only 3 per cent. per an.

As a security to the performance of the contract,the first two years' interest must be paid in advance, and it must be understood that at least one tenth of the land purchased shall yearly be brought under cultivation.

Twenty per cent. from the credit price will be deducted for cash. The company's construction bonds will be received as cash.

Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.

They will be 12 feet by 20 feet, divided into one living and three bed-rooms, and will cost complete set up on ground chosen anywhere along the Road, $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

Special arrangements with dealers can be made to supply those purchasing the Company's lands with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices*.

It is believed that the price, long credit, and low rate of interest, charged for these lands, will enable a man with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to JOHN WILSON,

Land Commissioner of the Illinois Central R. R. Co.

Office in the New *Stone Passenger Depot*, foot o South Water Street, Chicago, Ill. May 1—m6t

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THE EXCELSIOR HORSE POWER, THRESHER AND SEPARATOR, is acknowledged to be the best now made. Price, $160 for two-horse machine complete—$128 for one-horse machine complete. Manufactured by

RICH'D H. PEASE,

Sept. 4—w&m1t 369 & 371 Broadway, Albany, N Y.

UNITED STATES AGRICULTURAL

Warehouse and Seed Store.

MAYHER & CO., Nos 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,

FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz : —

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle D and F Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers.

Churns; fifty different styles, among which is the "THERMOMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf

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Agricultural Books,

For sale at the office of the Country Gentleman.

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THE FARM.

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Newburgh, Sept. 25, 1856—weow3t—m1t.

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Oct. 1—2mtw2t.* GEO. W. WILSON Malden, Mass.

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FORBES.
VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. IV. ALBANY, NOVEMBER, 1856. No. XI.

The Croton Point Vineyards.

We briefly alluded last week to our having spent a few hours at Dr. R. T. UNDERHILL's extensive grounds near Sing-Sing, on the 6th inst. The readers of our papers have long been familiar with his name, as a grower of Isabella and Catawba vines, and lovers of well ripened and carefully marketed grapes in New-York city, as the most extensive producer of this fruit in its vicinity. He began to plant the varieties named, or at least the former of them, about twenty-five years ago, having previously made some unsuccessful attempts at growing foreign sorts without shelter; and he has been untiring in subsequent efforts to attain the best mode of cultivation in every particular, from the first setting of the slip, to the productive maturity of the plant in the vineyard. He is now in possession of nearly a hundred acres of land, of which upwards of forty are in grapes, or, with the addition of adjoining vineyards belonging to his brother, there are more than fifty acres in all, to the sale of plants and the marketing of fruit from which, Dr. U. gives his undivided attention.

Croton—or Teller's Point, as it was formerly called—juts into the river fully half its width, dividing Haverstraw bay above from the Tappan Zee below. The stream from which it has received the name it now generally goes by, falls into the Hudson on the south—what is left of it after being dammed and drained off for the benefit of New-York city. The extreme point of the little peninsula turns downward, commanding in this direction one of the finest river views among the many beautiful ones for which the Hudson is justly famous. Here, once in revolutionary times, was fired a humble cannon at the *Vulture* in the bay below—scaring her from her anchorage, and leaving Andro without means of safe escape from the plot he was projecting with the traitorous Arnold. The soil is nearly a puro gravelly sand, underlaid at a depth of twenty or thirty feet with clay, and bordered here and there at the river's edge with alluvial deposits. Occasionally the upland is slightly loamy, but for the most part entirely sand, as above described.

Dr. Underhill plants his vineyards either in spring or fall as may be convenient, setting the vines seven feet apart, in rows six and a half feet from each other. This will take about one thousand to the acre. In his position as to climate and weather, he thinks the question of the inclination of the land immaterial, though farther north he would prefer an eastern or southern exposure, or one varying near these points. He has found it best to place the rows so that the prevailing summer winds may have free course through them—contrary to the European practice, in which circulation of the atmosphere is avoided, chiefly on account of the frequency of cold storms. He has found that here it is beneficial, preventing mildew and promoting the healthiness of plant and fruit.

In the number of plants to the acre his practice is also widely divergent from that in Germany and about Cincinnati—where twenty-five hundred is an ordinary thing. By placing them at greater distances he is enabled to "secure a crop the first year," as he remarked—if not of grapes, of *something else* between the rows, and as the vines do not bear until the third summer this is a matter of some importance. They are also taken care of much more easily, as horses can be employed to cultivate the ground, where only men could otherwise be admitted, and, finally, he thinks the yield quite as good and great, as can be produced from more plants on the same space. In fact, in ten years, if the vines crowd at all, or the land is too rich, he sometimes finds it expedient to remove every other vine in the rows, thus leaving only five hundred to the acre. One man according to his mode cares for six acres—at least four times as much as he could do on the German plan. Dr. U. is opposed on the most stringent principles to allowing any of his land to lie waste and idle, and by obtaining two crops from it before the grape becomes large enough to produce, compels the vineyard to pay while it is being made, though after the vines begin to yield he entirely excludes every other species of vegetation.

To adapt the ground as nearly as possible to the exact wants of the grape, has been the subject of many and long experiments with Dr. U. During his first trials he expended a great deal on artificial fertilizers, but further experience has taught him to increase the productiveness of his soil from the resources of his own farm. This he fully coincides with us in believing to be the true principle for every farmer to act upon. It would be a lesson worth the studying for most farmers to see the economy he displays in preserving all farm manures of whatever kind. He has no fences on his farm—his horses, cows and oxen being stabled the year round. The leaves upon the woodland are raked up in autumn to serve as bedding, and it is found that they pack of their own weight so as to occupy far less room than would be supposed, while they answer the purpose admirably, as well as form a valuable constituent in the resultant manure. An apartment of moderate size serves to contain a sufficient quantity to last nearly or quite the whole twelve months. Every drop of liquid manure, from stables and styes, and brought by drains from the house and out-houses, is collected in cisterns. In it, previously to being pumped out for use, Dr. U. dissolves potash, in the proportion perhaps of one hundred weight to thirty hogsheads,—which is thought to have the effect of making the manure more active, as well as being cheaper than ashes, in supplying the necessary ingredients abstracted by the crops from the soil. A cheap and coarse kind is bought at three and a half or four cents a pound.

We should here devote a few words to the compost heaps we have passed here and there, in our walk over the place. These Dr. Underhill begins, say with a stratum of the alluvial deposits from the river side, followed by one of horse or cow manure or both, then one of sods from along the roads, paths, &c., then the alluvia again, and so on. After they reach some height and when the manure cisterns chance to be full, a man perforates them here and there with a crowbar and the liquid is brought in a cart and put on, hogshead after hogshead, till the whole is saturated. They are made amply broad enough for a cart track, extended to any length, and as they slowly settle down carried higher and higher by additional layers till six or eight feet above the ground. The same pile accumulates the manures of nine months or so, and receives four or five thorough wettings. The value of a compost heap thus prepared, in comparison with its cost, as would be readily conjectured, is very great.

In the preparation of the ground for his vineyards, Dr. U. thinks that thorough plowings answer every purpose. In one case, he had had the earth trenched with spades to the depth we think of three spits, but the effect produced was of too little increased benefit to pay for the expense, which was if we recollect, in the neighborhood of four hundred and fifty dollars per acre. He adds a dressing of clay to render the soil more firm, and prevent its feeling so quickly the changes in the temperature of the atmosphere, and absorbing the rains so rapidly as to drench and chill the roots. A less quantity will answer every purpose than might be apprehended—in pretty thorough trials he had found three or four hundred loads sufficient on an acre of his rather coarse gravelly sands. In one experiment he had spread a vineyard of about six acres with 5,000 loads of alluvia and 3,000 of clay; but it proved too rich and heavy.

The vines are permitted to bear the first crop on a temporary trellis of stakes driven into the ground and connected by a single wire. The permanent trellis is then erected by putting in firm chestnut posts about seven feet high, and running along them a couple of wires for the second crop, and a third one near the top the subsequent season. The wire used is from number 10 to 12. We have not the space nor the necessary acquaintance with the subject to describe at length Dr. U.'s method of pruning. It is progressive, that is, different for each of a succession of years as a vine grows older, until it finally reaches maturity. The chief object kept in view, of course modified to meet particular circumstances, is *to depend on this year's growth of wood* for next year's growth of fruit. The ground is thoroughly plowed once in the spring, and the spaces dug between the vines; after this the harrow and cultivator are depended on to keep the soil loose and free from weeds, until the fruit begins to change its color—when no one is permitted to go between the rows until the picking begins. By thus employing horses and implements, the expense is very much less than on the German plan of merely spading and hoeing.

When the fruit is formed in June, as much as three-fourths to four-fifths of it are cut away—only the small remaining fraction being suffered to ripen. Thus, and by a careful system of pruning, the strength of the plant is economized, and wholly devoted to the end of completely maturing the juices which form both the vine and the fruit, and adding particularly to the size and sweetness of the latter. Every effort has been made to subject the main vitality of the plant to the one purpose of producing the best fruit rather than the most wood; and by these efforts, by careful pruning, and proportioning the quantity of fruit ripened to the capabilities of the vine, Dr. U. estimates that he has succeeded in adding much to the strength of the plants themselves, to the excellence of the fruit they bear, and in making the period of its maturity earlier from season to season, so that there is an average difference of at least *twelve days* between the time of the ripening of the grapes now and that when he commenced his efforts 25 years ago. This appears to be no inconsiderable advantage in favor of vines from his grounds; inasmuch as we see no reason why the same causes which operate to produce this earlier period of ripening in his vineyards, should not also have a similar effect on cuttings grown from them with the same care to the age of setting out. He has plants for sale at the age of two, three, and we think also four years old, as purchasers may prefer. About one-third of the vineyards are Catawbas, the remainder Isabellas—the latter of which has been found the surest for a crop, though it is very seldom that either falls short, and we understood that for many years past, Dr. U. had not experienced a single entire failure. The present season has been on the whole a cooler one than the average—according to his expectations, based as he told us, upon the fact that *every tenth year* regularly proves a cold one—at least he knew such to have been the case for certainly sixty years back, and had no doubt it would continue so. The crop is very good, however, the berries and bunches being especially large. We saw some Isabellas that entirely exceeded in these respects anything we have seen before,—here and there a cluster that must have been very nearly a pound in weight—and, although none were ripe enough to taste, we could easily credit Dr. U.'s assurances that they would soon prove as luscious as they then looked.

The doctor is rightly very particular that none shall go to market until they are *fully ripe*. He says it requires a good deal of experience and judgment to determine when they *are* ready for market. He expected to begin picking about the 15th, and he generally continues the marketing season for about two months. During this period he engages a store in New-York, where his grapes are all disposed of, with the exception of those retailed at confectionary and other stores through the city, and consumed at the hotels. His lowest wholesale price is fifteen cents per lb.; by the basket to families, sixteen; and when less than a basket is sold, twenty. One point which we should not omit to note, inasmuch as it is one in which fruit growers are far too generally negligent and regardless of their own interest,—is the care and nicety with which Dr. Underhill prepares his fruit for market. We have seen his particularity in respect to the entire ripeness of all that are picked; and every bunch of the vast number he sells is looked over, and the defective berries cut out by hand, so that not one may be left which a child two years old might not eat with impunity. Then, put up in new and neat baskets, they present an attractive appearance, which goes a great way in winning the heart—or perhaps we should rather say, inciting the appetite of the purchaser.

When Dr. U. commenced a good many years ago, he was the first and only one in the business, and could only command about five cents a pound for his fruit. He has not endeavored to retain this monopoly, but is always happy to explain everything he knows to any inquirer, and justly thinks that the more good fruit he can induce others to grow, the more public attention will be brought to the luxury, or indeed the necessity of the article, and the greater will be the consequent request for it. How just were these calculations, is shown in the ample demand that now exists for all he can grow at three times the price at which he started. We trust that he will not give up his present purpose of sometime presenting to the world the system which his long and careful, and we may add profitable, experience has matured.

There are several other points which we had it in mind to speak of at some length, connected with Dr. Underhill's agricultural and horticultural practice. The extent of the present paper will compel us to be very brief.

Several lessons may be derived by every farmer from what has been already written. He has seen how our friend economizes all his manures, and how he has discovered the secret not only of constantly increasing the fertility of his lands, but of *adapting the crop grown to the wants of his nearest market*, and thereby obtaining very much greater profits than the old farm routine could in any way be made to yield. How he has proved the vineyard rules received from European authorities far from being best adapted for his situation and circumstances, and *thought out, and worked out by experiment*, a system for himself. How he has created a new demand with the public, while he was himself supplying it, and how scrupulous he always is that every product he sells shall be *superior of its kind* and put up in the *best style*. It is self-evident, we think, that not one of these particulars is immaterial to the farmer who would succeed well in his business.

Another which we wish to bring forward, is the way in which Dr. Underhill contrives in almost every process, if we may quote a homely proverb, to "kill two birds with one stone." Where he has dug the deposits of vegetable and alluvial matter by the water's edge, for manure, a very little extra labor has transformed the ugly excavation into a fish pond; a water gate admits the fish from the river but will not let them out, and through the same channel the rising and falling tide prevents the lakelet from lying stagnant. The pond not only supplies fish, but *plums*—the trees being planted over it at an angle of perhaps forty-five degrees to prevent the ravages of the curculio, while it is also bordered with pears and quinces, and thus the land dug out and removed is not only made to yield a crop of fruit where it is put as a manure, but another over the hole it left behind. The forests are cleared out and seeded with orchard grass, and the leaves falling in autumn are taken away for use as we have seen, as well as that they may not smother the turf where they fell. Sods are required for the manure heap, and paths and roads tastefully, and here and there quite picturesquely threading the woods and climbing the river banks, are laid out and kept in order to yield them, as well as to furnish delightful drives and walks. It may abate somewhat from the romance of the beautiful, thus to find the useful ever lurking under its mantle, but it certainly brings it within the reach of many who now fancy it something beyond or above them, as well as places it in a new light to not a few, who are in the habit of considering themselves far too *practical* to seek it. *Utile dulci* is Dr. Underhill's motto.

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Hair, or even Straw Mattresses, are more healthy to sleep on than feather beds. Never put children on these heating beds. Keep your sleeping rooms very clean and well aired, and do not cumber them with unnecessary furniture.

In What Form is the Absorbent Power of Muck the Greatest?

Before proceeding to elucidate the above question, it may prevent misunderstanding, or facilitate the accomplishment of the object in view, to make a few preliminary observations.

As different names have been employed to designate the decomposing vegetable matter usually found in bogs, swamps, meadows, &c., and as some think that different *things* are intended when these different *names*, as peat, muck, swamp-muck, meadow-mud, pond-mud, and some others, are used, it would be well if one only of these terms were hereafter to be employed in preference to all the others, and that it were generally understood that they have all been heretofore in use to designate the same kind of matter. There are, indeed, varieties in this kind of matter; but in all its various forms it consists mainly of decomposed and decomposing vegetable fibre, and the forms in which it is found differ mainly according to the kinds of vegetables of which they were originally composed according as the muck has been formed of the washings of the neighboring uplands or of the grasses, bushes, &c., which annually grow and die on the spot, and according as it is found in ponds, or swamps, or meadows, or along the margins of creeks and sluggish streams. All these varying circumstances must produce some variation in the composition of muck. The nature of the surrounding soils, and of the vegetation which has flourished there and upon the swamp itself for many centuries, are the principal of the circumstances which give rise to varieties in the nature and composition of muck, that is of peaty or mucky substances.

The value and various uses of muck have been ascertained and extensively recognized much more within the last quarter of a centuary than during all the centuries preceding. It has been long known, indeed, as a valuable *mechanical* addition to heavy clay soils, making them lighter, looser, and more easy to cultivate; and also as a fertilizing material in certain circumstances. But for neither of these purposes, nor any other, was muck ever used, to any great extent, until a very recent date. The circumstance which has brought it more extensively into use is a discovery of its absorbent powers—of its capacity to absorb and retain the ammonial and other fertilizing gases which come in contact with it. This quality of muck is what gives to it its principal value for agricultural purposes. For this property it is coming very rapidly into more general use; and those who have made themselves familiar with its uses in this respect, having used it to absorb the fluid excreta of their animals and as a material for composting the non-fluid ones, are the very persons who are most confident that muck will be more highly appreciated and more generally used for many years yet to come.

There is a change in public sentiment going on at present, which will lead farmers to value muck more highly and to employ it more extensively. Since the introduction of guano into Great Britain and this country, it has been well ascertained that farmers can afford to pay forty or fifty dollars per ton for it, and, nevertheless, make it yield them, even at such prices, highly remunerative returns. Guano for a time was "all the rage." Meanwhile it was forgotten that matters of similar composition or of similar virtues were to be had at home, and that almost every farmer was allowing several sources of fertility upon his own premises to go utterly neglected to waste. Thousands of dollars were being sent out of the country for guano, while materials of nearly equal value, such as the droppings of the poultry-house or hen-roosts, the urine of the farm-stock, nightsoil, slops and suds, &c., &c., were allowed to go to waste entirely. Within a few years the attention of the agricultural fraternity has been called to this gross folly and inconsistency; and, as our readers of several years' continuance can bear witness, we have contributed not a little to the change of sentiment and of practice, in this respect, which is now taking place. Many of our best farmers are now saving manurial matters on their own premises which were formerly neglected and left unused. And in preserving the fertilizing properties of these matters, and in fitting them for use, upon the farm, and garden, and orchard, there has been found a new field of useful application for the mucky matters with which our marshes, and swamps, and ponds, and creek bottoms generally abound. We cannot at present give any particulars of the various modes in which muck has been recently used to absorb animal fluids and to augment the bulk and value of solid excrementitious matters; but our attentive readers have such particulars ready at hand in their memories. No substance can be at all compared with muck for usefulness in the manufacture of manures from putrescent substances, as well as for deodorizing purposes, or the destruction of unpleasant smells by their absorption.

It has been proposed to improve the usefulness of muck in two ways:—first by charring it, and secondly by the addition of lime, lime and salt, ashes, soda and other things. The absorbent and deodorizing properties of wood charcoals led to the former proposal, and the existence of tannic or other acids in *fresh* muck probably led to the latter one. For the generality of agricultural purposes, as for absorbing ammonial liquids and gases, we have usually considered the best preparation of muck to consist in exposing it to a winter's frosts and a summer's heats. But that our readers may have an opportunity of judging in regard to this matter for themselves, we will now submit to them, in a much condensed form, the results of some experiments lately reported by Dr. Davy, Professor of Chemistry, Dublin.

With a view to throw some light upon the question at the head of this article, or more especially upon a question as to the superiority of peat or peat-charcoal in deordorizing animal excreta and in fitting them for use as fertilizers, Dr. Davy made some comparative experiments with peat and peat-charcoal on stall urine, which by decomposition had become highly ammoniacal. As peat from different localities differs in certain respects, the same sods were employed, charring one part of each and leaving the other part uncharred. Both kinds of peat having been reduced to powder, equal weights of each were put into two similar evaporating dishes, and equal quantities of the urine mixed intimately therewith.

The proportions employed were 500 grains of peat or peat-charcoal to six drachms (or about 355 grains by weight) of urine. Ammonia was evolved for several days from the charcoal mixture, as shown by the odor and by moistened turmeric paper; whereas, in the case of the peat, no odor was perceptible, nor could any disengagement of ammonia be detected by means of turmeric paper. After exposure for four days it was found that the charcoal mixture had lost three-fourths of the ammonia originally contained in the urine; whereas in the case of the peat, instead of there being any loss of ammonia, there was a slight excess over that existing in the urine alone, which Dr. D. explains by the fact that peat itself always contains a minute quantity of ammonia. (Lime or ashes would expel this, and till neutralized prevent the absorption of more ammonia.)

Two other sets of experiments in which the mixtures, the same as in the previous one, were kept under cover of an air-tight bell-glass, with cups of diluted acid to absorb the ammonia which might escape, yielded exactly the same results. The charcoal lost three-fourths of the ammonia originally in mixture, while the peat retained the whole of it.

These experiments show, according to Dr. Davy, that peat charcoal, (contrary to the many statements that have been made by its advocates) has very little power of absorbing and retaining the ammonia of excrementitious matter when mixed with it; whereas peat, by itself, possesses this valuable property in an eminent degree, absorbing and retaining ammonia in a very striking manner. Not only has the charred peat but a very diminished power of absorbing and retaining ammonia, it has the property, to a certain extent, of decomposing the fixed salts of ammonia, as the muriate, sulphate, phosphate, and urate, and converting them into the volatile carbonate. This latter property would seem to depend on the alkaline and earthy carbonates formed during the process of charring. Peat, however, does not posses this property in the slighest degree.

According to the results and statements just named, peat is proved to possess a great superiority over peat charcoal for agricultural purposes, so far, at least, as ammonia is concerned, which, in the case of the former, is retained to exercise its fertilizing influence on vegetation, whereas, in the case of the latter, a large share of it is dissipated and lost. The results of Dr. Davy's experiments are, moreover, contrary to what might have been anticipated from the experiments of De Saussure and other chemists, who have shown that charcoal possesses the power of absorbing different gaseous substances, and particularly ammonia gas, in large proportion. The circumstances, however, under which the other experiments were conducted, were very different from those in the case of the experiments of Dr. Davy.

De Saussure, when he ascertained that charcoal absorbed about ninety times its volume of ammonial gas, employed perfectly dry and very dense charcoal made from box-wood (the denser the charcoal the greater being its absorbing power;) and in order that it might be as free as possible of air, heated the charcoal red-hot, and while in this state plunged it under mercury, and thus cooled it out of contact with the air. Such perfectly dry charcoal, and so free from air could never occur in practice or in the deodorizing or composting of animal excreta; for in addition to the air and moisture necessarily absorbed from the atmosphere in spite of the most careful mode of keeping, it must become more or less completely wet on mixing it with these animal matters; and the experiments of De Saussure show that the absorbing power of charcoal for different gasses is greatly impaired by the presence of moisture.

By another experiment, Dr D. ascertained that the absorbent power of peat charcoal for ammonial gas, even in the dry state, is very much overrated, and is far less than that of peat in its ordinary state of dryness.

Peat has a decided advantage over peat charcoal, also, as regards carbonic acid, so essential to the supply of the wants of the young plant before its leaves are sufficiently formed to obtain this indispensable substance from the atmosphere. Charcoal is much less liable to be oxidised or converted into carbonic acid at the ordinary temperature.

Peat has yet another superiority over charcoal, and some other modes of preparing it. Its greater elasticity in its natural state makes it better fitted to improve the mechanical texture of soils, and to render more pervious to the air heavy clay soils deficient in vegetable matter.

It would appear from the foregoing and other similar facts, that peat or muck in its ordinary state, dried by one year's exposure to frosts and heats, is in a superior condition for mixing with manures and for other agricultural purposes. Nature has thus furnished materials to fertilize the soil, and requires of man not to improve her materials, but to apply them skillfully and liberally.

The Vermont State Fair.

The fair this year was held at Burlington, on the 9th, 10th, 11th, and 12th of September. The ground enclosed was in extent about thirty-five acres, at the northwest corner of the town, on the shore of Lake Champlain—a most beautiful spot on the table land between the lake on the one side, and Winooski river on the other, and about eighty feet above the water of the lake. Immediately on the top of the abrupt bank of the lake, was an open grove of pines of some ten acres, affording a cool and delightful shade. Next east of the grove were Floral Hall and Mechanics' Hall. Stalls for horses, pens for cattle, sheep and swine, and posts for hitching, &c., were north of the halls, extending westerly into and around the north end of the grove. The seats, capable of seating about 3,000 persons, facing east, occupied the centre of the ground, and east of them was the track for trotting, half a mile in circuit. The view from the ground was extensive, varied, and beautiful—the lake on the west, lying calmly under the majestic Adirondacs on her western shore; on the south and east, the village of Burlington, and in the far east the varied outline of the Green Mountains, from the valley of Lamoille to the Otter creek.

The chief attractions of the fair were the "cavalcades," or marching of the different families of horses over the course—once around the track at a walk, once around at a slow trot, and then if any of the owners in that family wished to show the speed of their horses, they had the opportunity, from one to five going at a time. These cavalcades took place several times each day.

The display of horses was generally spoken of as the best yet made at any Vermont State Fair. It certainly was very creditable to the State. The predominant color was black, and probably more belonged to the Black Hawk than to any other one family. Ethan Allen, the Myrick horse, the Root horse, and the old and young Rattlers, seemed to have established characters for speed, and were the general favorites on the ground.

Among the more noticable and valuable animals, were a large gray gelding, owned by Mr. Herrick, of Winooski Falls; a very fine Black Hawk mare, owned by Judge Willson, of Hinesburgh, and a span of carriage horses, own brothers, the get of Long's "Sir Henry," owned by D. D. Howard, Esq., of Burlington, the latter entered only for exhibition. The display of breeding mares and colts was small and inferior.

There were but few cattle on the ground. The farm of Ezra Meech, jr., of Shelburne, was represented by some seventy head of good cattle, mostly grade Durhams. The remainder of the State furnished about as many more, mostly grade Devons and Durhams. A full-blooded Alderney bull was exhibited by L. B. Englesby, Esq., of Burlington. As a whole, the show of cattle was meagre in point of numbers, and inferior in point of quality.

Of sheep but few were exhibited, and that few hardly worth the notice of the breeder.

The display of swine was not large, but was remarkably fine. Messrs. Drew & Prouty, and Mr. Blodgett, of Burlington, and Mr. Brownell, of Williston, were the chief exhibitors. It was refreshing to see, in at least one class of animals exhibited, a manifest desire for improvement in the breed, guided by skill and intelligence.

The display in and around Mechanics' Hall was good. In addition to the latest and best of agricultural implements made in Vermont, New-York, and elsewhere, specimens of cloth from the woolen and cotton mills, and of wooden manufacture, from the occupants of the Pioneer Mechanic Company's shop of Burlington, gave unmistakeable evidence of the skill of the manufacturers and mechanics of Burlington.

Floral Hall was tastefully decorated with flowers in great profusion for the season. A large and beautiful collection of paintings, some of them of great value, occupied the larger portion of the centre partition of the hall. The display of fruits was good, and the number of fine specimens of the choice varieties of our best fruits, was exceedingly creditable to the fruit growers of Vermont. Floral Hall was too small to accommodate, by advantageous and tasteful display, its contents, and a portion of its limited room was appropriated by vendors of fancy shells and other fancy wares, not only for the exhibition but also for the actual sale of their wares.

The products of the dairy shown, were limited in quantity, but most superior in quality.

This exhibition, like former ones, did not give a fair or even creditable representation of the agricultural products of the State as a whole. It did not give evidence of the intelligence, the energy, and the progress of Vermont farmers, in any respect, save that of raising horses for trotting. We think this is like to be the case for some time to come, unless the society abandons the, to say the least, questionable plan of including within their inclosure a race course.

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A Little More about Draining.

Messrs. Tucker & Son—I have had a peach orchard for some thirty years on high land. I generally planted it with potatoes. In dry seasons they were always very small, and the ground so hard it was next thing to impossible to get a spade or dung-fork into the ground to get out the potatoes. In a wet season they were large enough, but the greater part rotted, and sometimes the whole. The trees in the lower end of the field were unthrifty, and died out in a few years.

You know I think draining the radical cure for all the *ills* that land or its products are *heir* too; and a few years ago I went at draining it, by laying out a drain across the lower end to empty into a drain in the field adjoining, and then parallel drains up to the higher end of the orchard, 20 feet apart, and put a man to digging the same in a dry season. After he had been at work a few hours, I went to see how he was getting along. When asked how he got on, he said—"*Shure, sur*, this land don't want draining—its *too dry intirely*, and so hard that water could never get into it *at all, at all*." I told him when he got that drain the whole length and three feet deep, I expected signs of water. About four hours afterwards I asked if he got any water. He said no, but it sweats in the bottom. Next morning there was a run of water, and so it was in all the drains.

Now for the result. First, I have never had a rotten potato in it since. In a wet season they come out clean. Before draining, in a wet time they were so coated with clay one could scarcely know whether they were potatoes or stones. We have seldom had a greater drouth than this season, yet my potatoes are very large, and you can pull a stalk, and then put in your hand and bring out the fine white potatoes without using spade or fork. I am sure the excess of produce the first year, paid all the cost of drainage; and the improvement in the peaches is equally marked. I feel confident that every man that could see the improvement would go and do likewise. John Johnston.

Near Geneva, N. Y.

An Important Invention—New Plow.

We see in the western papers, notices of a newly invented plow, which promises to be a very valuable acquisition, if what is said of it is correct. Mr. E. Abbott, former editor of the *Valley Farmer* at St. Louis, writes to that paper as follows:

This afternoon we rode out on the prairie to witness the first experimental trial of a new prairie plow, the first of which has just been finished at the Eagle foundry in this city. Mr. Jesse Frye, its inventor and builder, is a most ingenious mechanic, and by the production of this implement has placed himself in the front rank of inventors. The plow of which we speak is styled "An adjustable anti-friction carriage plow;" and when we say that with two horses attached to it, a furrow twenty-four inches wide and five inches thick was rapidly turned in the toughest kind of prairie sod, and that too in ground that had been beat down by cattle, and dried by the summer's drought, until it was as hard and as dry as ground can be, our readers will not think us extravagant when we style it one of the greatest inventions of the age. Moreover in this trial, the driver of the team and the inventor of the plow, both heavy men, rode at their ease on a seat prepared for the purpose and placed over the plow. It appears a very simple machine, easily adjustable, and not liable to get out of repair. An ordinary plowman can ride at his ease, manage the plow and drive his team without any difficulty. A select number of the best mechanics and scientific men of this city, all, without a dissenting voice, pronounced themselves wonderfully pleased at this success, and considered that it would save at least 75 per cent. of the power usually employed in breaking prairie. Several farmers present affirm, that with a team of four horses, they could easier break four acres per day of prairie, than they could two acres with an ordinary breaking team of twelve oxen. Some of the peculiarities about this plow are:

First—It is supported on a carriage which runs on four wheels. This carriage takes all the *weight* of the plow, leaving nothing to be dragged on the ground. It also overcomes all the *land side* friction—the share being held firmly in its position by its attachment to the frame of the carriage, cannot press upon the land side. Thus when the plow is out of the ground, a boy twelve years old can move it all about the lot, a feat not easily performed by two men with an ordinary breaking plow.

Second—The mold-board is composed of anti-friction rollers, which are arranged in the most scientific manner, so as to lift the turf and turn it over, with the least possible resistance, thus overcoming nearly all the friction from this operation.

We believe Mr. Frye has perfected an improvement in the plow which is of immense importance to the farmers of our country, and as the principle is equally applicable to plowing all kinds of land, we predict a great change in the manner of performing this hitherto laborious but necessary part of farm labor. We learn from Mr. Frye that he will visit several of the fairs this fall.

We add to the above the following from the *Illinois Farmer*:

On the 16th August, there was a public trial of this plow on the Sangamon Bottom Prairie, at what is called "Marsh's Ferry." The trial was made on what is called "swamp ground," the toughest piece of ground that could be found on the whole prairie. The plow was put into the ground about three o'clock, and was drawn by four horses. It did the work well, cutting some twenty-six inches. The ground was, of course, baked hard. It was hard work for the horses; but it was conceded by good farmers present, that eight yoke of cattle would not have drawn a common plow, cutting the same width which was cut by the Adjustable Plow, with anything like the ease with which the horses did their work.

At the close of the trial, the company present was organized into a meeting, and the following resolution passed:

Resolved, It is the sense of this meeting that the "Adjustable Anti-Friction Carriage Plow," invented by Mr. Jesse Frye, is an important improvement on any plow now in use, and will do more work with less power than any plow with which we are acquainted.

We need only add, that since the above noticed trial of the plow was made, it has been subjected to several other trials, and in all cases has been successful. The exact amount of the power saved cannot be ascertained except by the use of the dynamometer.

To see two or three horses breaking prairie with a plow cutting twenty-six inches—the plowman sitting comfortably on a seat above the plow—having the team and the plow at his perfect control—is a gratifying and wonderful sight, even in these days of progress.

To Preserve Trees from Mice.

Mr. David Gray, of Deerfield, Oneida county, who has several large young orchards, recently informed me that for the last two or three years he has used a very simple preventive against the girdling propensities of mice, which has succeeded in every case. He adds one pound of tallow to two quarts of common tar, melts and mixes thoroughly, and applies while warm with a paint brush, to the trunks of his young trees, from the ground as high up as he thinks there is danger of their being gnawed. He makes the application just before winter sets in; any time late in the fall will answer. This simple application he finds entirely successful, for while his neighbors have suffered largely from mice, he has not lost a tree. He is very confident that common tar thus mixed and applied has no injurious effect upon the trees.

Mr. Gray's plan commends itself for its simplicity, and if it proves as successful with others as it has with him, of which I have no doubt if properly applied, it will prove of great value to those who wish to raise orchards or nurseries. D. S. Heffron.

Messrs. Editors—I give you my preventive for mice girdling trees. It is simple and effective. Apply, late in the fall, melted tar, with a swab, completely covering the tree at the ground, and up the body as far as there is any danger from mice. It is sure. D. E. L. *Burnt Hills, N. Y.*

The Rose Bug.

After reading an interesting description of the Rose Bug and its habits, in the September No. of the Cultivator, from the pen of Dr. Fitch, I am led to make a few remarks upon its habits in this neighborhood. Twenty years ago this insect was very plenty here; every rose and elder bush was covered with them. They became more numerous every year. The choicest varieties of the cherry suffered most from their depredations; they attacked these as soon as they began to ripen, and the owner was fortunate if he secured enough for a taste. They then, from their increasing numbers, attacked the apples, and bid fair to destroy all the fruit. Farmers became alarmed at their increasing numbers. The next season they were less numerous, and have been decreasing since up to this time. It is now very rarely to be seen—almost extinct. I do not recollect seeing one this summer. They may disappear the same way in localities where they are so plenty at present.

K. S. inquires—"What can be done next year that will save the grape?" I know of nothing that will drive them away except such remedies as Dr. Fitch proposes—that is by crushing them, or covering the vine from them; but he may not have them to contend with another year. John W. Lequear. *Kingwood, Hunterdon Co., N. J.*

Reflections at a County Fair.

Ten years ago and more, I was in the practice of attending county fairs, in one of the States, where after an interval of one decade of years, it was again my lot to be present. In those early days there was little to encourage the hard-working, enterprising, and self-denying officers—the number of spectators in attendance was at most but a few hundred, and all that was to be seen was open to the wide world; a fee even so small as a few cents for seeing the sight would not have been tolerated. Now, although the grounds were enclosed by a high fence, and a snug fee was exacted of every visitor, yet there were at least fifteen thousand persons present, and I learned that in that part of the State twenty thousand was by no means an unusual number. The funds of these societies were thus largely maintained, and there was little of that hard-working, up-hill business once required. This would have been indeed very gratifying, had I not observed a striking difference in another direction. Formerly, every thing connected with the operations of the society with which I was most familiar (and the others in that part of the State were much like it,) tended to the development of the most valuable information; and all the spectators to a man (or *woman*, as the case might be) were busily occupied in examining the fine animals, and learning where the breed could be procured, how to raise such large and fat oxen, how those fine squashes and excellent watermelons were cultivated, what was the secret in making that excellent firkin of butter, and those large and magnificent cheeses, which was the best made plow in the county, and whose thrashing-machine run with the least friction. The reports contained much of the highest value on raising the different crops—the results of experiments on manures, underdraining, and other departments of profitable farming.

But at this present fair, I observed that a great change had come over the spirit of the dream. Of the fifteen thousand persons present, there were about forty-five engaged in examining the new farming implements of which there were some quite meritorious, and perhaps twice that number, including mostly ladies, were in the "hall" (shanty) devoted to stoves, fruits, and vegetables, cheese and butter, and the various household articles. The cattle had a few occasional visitors, who passed quickly along the line of posts to which they were tied, made a few random remarks, the general run of which was, "I left a great deal better oxen than *these, to* home"—"Them air cows aint a touch to mine," &c., &c., and passed on. The race-course was the great object of attraction, throughout the day. Early in the day, this ring, (nearly encircling the entire grounds,) was taken by some twenty or thirty drivers of various grades, in buggies, sulkies, carriages, wagons, &c., most or all of which endeavored to show the speed of their horses. Some trotted their teams at the moderate pace of only ten or twelve miles an hour; others more ambitious, in light buggies, and with unlit cigars, or sticks to imitate them, were not satisfied with anything less than fifteen or twenty miles, while occasionally those were all passed like drift wood, by the flying sulkies drawn by the "two forties," the drivers of which appeared to regard with great contempt their slower competitors. As one set of charioteers wore out their steeds, others took their places, so that the ring was kept well thronged for several successive hours. Nineteen twentieths, at least, of all the spectators at the fair, were intently watching these performances the day through.

These doughty champions, suffered however, a total eclipse when the "ladies" took the course. It was my fortune to be so near to them during the half hour they were assembling, as to observe every expression of their countenances. They were mostly quite young, or from twelve to twenty years of age. One of the most prominent, who evidently regarded herself as handsome, had a rich and costly dress, her face wreathed with dimples and smiles, and marked with an eminently self-satisfied air. A second had very little expression of any kind on her rather homely face, and her moderate intellect had apparently been wholly directed to the business of riding a horse. A third, quite young, was conspicuous for a sharp nose, peaked chin, a close-pressed mouth and a determined air; I was told that the horse on which she sat was a full-blood racer, and that, as railroad men say, she knew how to "work him up to a very limited time-card." A fourth was evidently more unused than these to exhibit herself before the assembled thousands who were intently watching, and she looked pale and agitated. The others had their peculiar combinations more or less of these various characteristics.

At length the President announced that the committee was full, and the word was given to "move." Speed was regarded as the chief merit, judging from the results. I held my stop-watch,—the first half mile was completed in two minutes—the second in a minute and a half—the horses bent themselves to the work with the utmost energy—and after a sufficient amount of "immortality" had been thus earned, and various other feats and curvettings had been performed, the race was finished. The delight of the spectators appeared to be unbounded, and every other object of attraction on the ground, was forgotten by nearly all present.

There were several questions occurred to me on looking over the scene, and observing the great difference which existed between this fair and those I had seen in that State in former years. The following were some of them;—

What portion of the 15,000 in attendance would have come, if this race course had been left out of the arrangements?

How many of these spent half an hour or more in examining the implements, animals, &c.?

What was the exact and specific amount of valuable information which they derived on the whole from witnessing all day the trotting, cantering, and swift galloping?

What amount of money was bet on the speed of these horse-racing girls, among the spectators?

How many of these young ladies who were so skillful in managing blood horses, can milk a cow, make a cheese, work a roll of butter, darn a stocking, make a shirt, cut out a dress, write a letter handsomely, spelling all the words correctly, and folding and superscribing it neatly, make a loaf of good bread, cook a dish of food for an invalid, and speak a pleasant word and administer comfort, when others are fretting from distress, impatience, or grief?

How many of these girls, who ride as a "healthy exercise," would do so, if their riding was confined exclusively to the back lots of a farm where no one could see them? Or when it might also be practically *applied*, as for instance in plowing or cultivating corn and potatoes?

What amount of health is promoted by the intense excitement and extraordinary exertion consequent on such a public exhibition of their persons and performances?

What is the exact amount of public benefit thus conferred upon the community at large, requiring the assembling of 15,000 intelligent farmers and others, at an expense of $30,000 in time, &c., &c., and the patronage of a dignified agricultural society,—taking this benefit in all its moral and social bearings?

I wish it to be distinctly understood, that these inquiries and suggestions are not made with any disposition to object to or find fault with this healthful exercise, but merely to assist the officers of agricultural societies in estimating its effects and benefits. SENEX.

Rearing and Training Colts.

MESSRS. EDITORS—I have of late noticed in your paper, a number of views in relation to training colts, and if the subject is not already exhausted, I will cast in my mite with the rest.

Commencing at the foundation: select just such a mare for breeding, as above all others you would prefer to use yourself; sufficiently compact to keep easy, and perfectly sound, wind, limb and body—without fault or blemish. If you have a mare that has any faults or blemishes, and wish to try her as a breeder, do so. If her colts prove number one, keep her—if not, let her pass into the hands of dealers in second-hand horses. If your mare is mild and tractable, as she should be, she might be judiciously used (not driven too fast,) until three weeks before foaling. (I have worked them to within two days without injury.) If work is an important part, let them foal about 1st June, then you can work them at your spring farm work until middle of May, when they should be turned out to grass.

In selecting a sire, choose one of good size, all other things being equal—(every one hundred pounds above one thousand, added to the weight of a good three or four year old colt, will add $25 to his selling value)—but know that he is sound every way, round proportions, that will keep easy, broad between the eyes, a show of courage, with an inviting, intelligent countenance. Let his pedigree be good, and find it out. If he is advertised for what he is not—that is, with a design to deceive in pedigree, reject him, even if he is the best horse you ever saw, and tell the owner plainly the reason—that honesty will answer your purpose, and a forged pedigree will not.

Now, presuming you have a good colt, do well by him the first winter; the second and third winters he will bear coarse keeping as well as any stock you have. Should not approve of too much straw, and sheep and oxen orts; coarse hay fodder will do; and if the colt gets thin there will be no permanent injury, provided his hair keeps a thrifty look; he will come up in four weeks at grass Always give good pasturing in summer. Summer feed is too cheap to keep any stock short.

Halter break any time from three weeks to three years old, as you find for your convenience. Take him into a small yard free from stone; put on your halter, one he cannot break; take a small stick in your hand, that he may be afraid to jump on you; be gentle, and not frighten or hurt him. If the colt runs back, follow him. You can run forward as fast as he runs back. If the colt runs forward, hold on; do not run, but pull him round; a man can pull round a large colt; do not get behind him, but keep at the side; learn him to lead by pulling side ways. In that way you have the advantage. He will very soon follow you around, and soon after that forward.

In hitching, hitch in a way they will not be tempted to pull and continue it. Hitch them in the stable with a few oats or some good hay in the manger, or hitch to the old mare's neck, with not more than one foot of slack halter. Be gentle, and your colt will be halter broke in less time than I have been writing how to do it.

Now allowing the colt is well halter broke, and has come to the fall or winter past three years old, and is in good spirits and good condition, put on your bridle; buckle it rather tight on the top of the head, as that will draw the bit so far into the mouth as to prevent their throwing the tongue over the bit. Let them stand with a bridle on some two or three hours at three or four different times. (I have known colts with a loose bridle, and put at once into the bitting machine, to throw the tongue over the bit and ever after carry it there, and if they carry the tongue over the bit, they will be most likely to carry it out of the mouth.) Put on your bitting machine. Draw your colt's head in but little at first. Turn him into a yard where the fence is smooth, that his bridle may not get caught. The colt may be bitted some half a dozen times, two or three hours at a time, drawing his head in a little more each time, but never unnaturally close, or so as to sore his mouth in the least. If he begins to sweat and becomes very uneasy, you may conclude he is too tightly bitted and should be released. The reason why I should wait till the fall or winter after the colt is three years old, before beginning to break, is, that I should never commence to break before the colt is old enough to work, and all the work a colt does before that age will be done at the expense of his growth; besides, at and after that age, a colt will bear considerable strain and effort without affecting his shape or future good, while previous to that age, some uncalled for effort in breaking may forever affect his goodness.

If you wish to learn him to follow you, now is the time. It can be done in half an hour while he is in the bit. If you have always been gentle with him he will not avoid you, but come up to you and by rubbing against you indicate that he wants the bridle off. Get a few oats in a measure and a stick in your hand, shake the measure that he may hear the sound of the oats, and say "come here;" when he has eat a few oats, raise up your stick and go away from him; keep your stick in a way that he will not dare come very near for fear; then put down your stick, shake your measure, and say "come here," and you will see him coming. When he has eaten a little, raise up your stick and drive him away. When he shows a disposition to come back, drop your stick, exhibit your measure, and say "come here." You may start and walk off, he will be at your heels. You may now practice with your oats and without, as you find necessary; he will understand your language if he is not hurt or scared.

Now if you wish to ride him with the least trouble, take him into the stable, shut the door, hitch in the stall—(presuming it is not less than five feet wide and ten feet in the clear overhead)—lay your breast upon his shoulder—next jump so that your body will lay across him; do so several times; now bring yourself around astride him. Get off and on as many times as you please. Now open the door, unhitch your colt, and ride where you please. If he is not inclined to stand for you to get on—make him stand while you get off and on, two or three times before starting. Now put on an old harness, hitch him in the stable, with the traces tucked through so that they will dangle about his hind legs, and let him stand some three or four hours. Then take him out, and either lead or drive him in the harness, enough to feel that he is not to be hurt. If you have a steady horse it will be the least trouble to put your colt in at the side of it, but if not, turn your wagon or sleigh into fair sailing; let some one take the colt by the head while you hitch him to the wagon and get in—(hitch him to no two wheeled affair unless you want your neck broke, nor to any go round process.) If there is much fear that the colt will kick, check him up pretty close at first, and he will not be likely to get his heels very high. Be gentle and patient—have no sharp bits on him from the first, and do not hold him too tight. Let the other man lead him a short distance, and then do up the halter. If he jumps and plunges, keep in the wagon and be patient. I never get out so long as colt, wagon and harness hold together. Do not let him go out of a walk, nor even know that he can trot, until you have driven him several miles up hill and down on a walk, and then not until you can say he drives as kind and nice on a walk as an old horse. After the first day get into your wagon to back him; drive any and everywhere you would an old horse, only be gentle and patient, and very cautious how you use the whip.

And now that he is fine, fat and sleek, keep him so Feed a little grain, and use him carefully every day until he has become accustomed to the harness, and you feel safe with him anywhere. Never drive him so but that you know he will be as well off the next morning as the morning previous. Three year old flesh on a horse seven years old is worth a dollar a pound, and like old cheese growing better every year. If your colt is inclined to shy in the harness, drive up to the object or as near it as practicable, stop him and let him stand awhile. Practice it invariably, and you will soon have a gentle horse. Do not brag how fast he can go until he is seven years old. Do not trust your boys out of sight with the colt. Let them take the old horse; if he has been managed upon my principle he is a good one, and if not your colt will soon be no better.

If you have a good colt that you wish spoilt, send him out to a reputed colt breaker, one who will bit him square to the mark, and with whip and spur push him right to the point, so that in three weeks you will have a colt *broke* scientifically, *physically* and *constitutionally*—flesh gone and going, mouth raw, appetite gone, spirits gone—will have the scratches, from derangement of system, for the rest of the winter, and if in the spring you turn him out to grass, he may come up in the fall to half the value he had the fall before, (less $15 paid for breaking.) We hardly realize how easy it is to spoil a good colt, and the good ones are the easiest spoiled I have seen many one hundred and fifty-dollar colts in six weeks time brought down to one hundred dollars, and never again get above that price, all from not knowing how they should be treated and what they can bear.

I find when I go out to buy, only about one horse in seven, among horses over seven years old, that can be relied upon in every point. In reply is your horse sound and right? Y-e-e-s, for anything I know. He had the horse-distemper last year, since which he has had a little cough sometimes, or he has a slight bunch on one joint—was a little lame at first, but have seen nothing of it of late. Or he favored one fore-foot a little some time ago; or he bites the manger a little; or he ran away and broke my wagon, since which I hardly dare trust my children with him. "Now I think the horse worth $140, yet as I wish to dispose of him I will take $125." While the fact is hardly admitted that he is wind-broke, heavey, foundered, spavined, or run away, and ten chances he has two or three of the above complications or others worse, which induce the owner to dispose of him $15 less than the price of a sound horse.

Now when you go to buy, if the horse is admitted to have now or to have ever had the least fault or blemish, leave him for the next man, even though you can buy him at half price. (I dare not trust myself to buy amongst strangers, and rather buy a colt and work him into a horse than buy among acquaintances.) And if you get a horse on your hands that is not what he should be, no matter what you paid, sell him to a dealer in second-hand horses, and not try to palm him off for what he is not. Do not sacrifice your reputation as an honest man by a few dollars on a horse; as if you sell under any want of true coloring, the man to whom you sell and his friends will carry just as good an opinion of you as you will of the man of whom you bought. And will you be likely to buy of him again a horse or any thing else?

What I have said is designed for those who buy horses out of necessity, and for those who make the rearing and disposing of colts one branch of an honest living, and not for jockeys or horse speculators. I should like to say more in relation to feeding and driving horses of different ages, &c., but am getting tired of it, and had I supposed I should have written so much would not have undertaken it; and fearing the reader has become tired before the writer, I close. C. O. Perkins. *Becket, Berkshire Co., Mass.*

We are much obliged to Mr. P. for the above, and hope he will favor us with his views on feeding and driving horses.

The Albany County Fair.

The exhibition of this society, last week, elicited a fair display of the agricultural and mechanical productions of the county. In respect to stock—particularly cattle—it manifested the more general favor with which our farmers are beginning to look upon improved animals, and the enterprise with which a number have engaged in procuring and breeding them. We regret that the herds of imported and other fine cattle, belonging to several eminent breeders in this city and vicinity, were not also represented. The Short-horns of Dr. Wendell, Ayrshires of Mr. Prentice, and Herefords of Mr. Corning, would have added much at least, to the variety and interest of the exhibition—scarcely a specimen of either of the two last breeds being on the grounds. Among the Short-horns shown, there were some excellent animals, but the Devons were, of the two, the best represented, including several which must have compared favorably with those at any show in the country. Horses were out in larger numbers, we understood, than on previous occasions. Sheep and swine were tolerably numerous. There was a large and good show of poultry. Fruit and flowers were fine, the former remarkably so—vegetables also good, and agricultural implements well represented. We saw one cheese and a small assortment of butter—numerous cooking and other stoves, many of them 'fired up' for operation—some well finished carriages of different kinds—a good turn-out of the various articles of production or sale in city stores, and an average display of household manufactures, including bread and embroideries, flannels and fancy work. We go on to notice the contributions of individuals as much in detail as our space will allow.

Among the *Short-horns*, William Hurst was the largest exhibitor,—his show including 'Balconi' by Balco, now not quite two years old, purchased at Col. Morris' sale; a good bull and yearling bull-calf by Damon, one or two cows and heifers of more than average merit, and a very pretty and promising heifer calf three months old—also two cows 'Zephyr' and 'Agnes,' and a heifer calf out of the latter by 2d Lord Eryholme, which last three he has recently purchased from John D. Thorp, of Castleton. William Bullock had also several head of good Durhams—a bull sired by Prince of Wales which took the first prize in his class last year, and two or three females worthy of particular notice. Peter Van Wie of Bethelem exhibited a good three-year-old bull by 'Damon;' William Janes of Albany, an excellent cow; O. F. Jacobson of Bethelem, Abram R. Oliver of New Scotland, and one or two more, were the other principal contributors.

In *Devons*, Capt. Hilton of New Scotland, showed the bull 'Empire,' his purchase of which from a gentleman in Columbia Co., was sometime ago noticed in our paper. This animal is from the Hurlbut stock, and has attracted much attention wherever he has been shown. He now carried off not only the first prize in his class, but the sweepstakes prize as the best bull of any breed on the grounds. Capt. Hilton also exhibited three cows purchased at Col. Morris' sale, 'Edith' imported, 'Ruth' bred by Col. M., and 'Rouge' bred by Mr. Patterson of Maryland—all beautiful animals, the first remarkably so. Edith and Ruth received the first prizes, respectively, as cow and heifer, and Rouge the second prize. The best two-year-old bull on the ground was that of Peter McHarg of New Scotland, 'Chief,' by Mr. Wainwright's Osceola. He is a fine and handsome animal. John Conger, Westerlo, H. R. Jolly, Bethlehem, and J. C. Bell, Albany, were among other exhibitors.

Of *Working Oxen*, there was a good show. A yoke of Capt. Hilton's, others belonging to Peter Van Wic, Peleg Wheaton of Preston Hollow, Jonn Witbeck, and P. D. R. Johnson of New Scotland, Charles Cole of Westerlo, Jno. Turner of Berne, Jacob L. Ten Eyck of Bethlehem, and Peter McHarg, attracted constant attention, and among them carried off most of the prizes. A pair of yearling steers shown by Mr. Wheaton were very pretty and nicely matched.

Long Wooled *Sheep* were exhibited by Geo. Turner of Berne, Jurian Winne and Gilbert Wemple of Bethlehem, and J. W. Jolly of Coeymans. We noticed among exhibitors of Middle-Wooled, the names of Messrs. Rosekrans, Loop, Van Wie, Sager, and Booth, all of Bethlehem, T. W. Ingalls, of Westerlo, and H. W. Mackey of Rensselaerville, the last two of whom were also the chief exhibitors of Merinos. Jurian Winne received the sweepstakes for the best buck on the grounds.

The *Swine* were mostly from the styes of William Hurst, who appears to have divided the Premiums with Henry Bailey of Bethlehem and William Jancs of this city.

In *Horses* we cannot do better than copy the premium list:—

Horses of all work—No. 1, first prize—best brood mare and colt, Evert Oliver, New Scotland, Dip. and $10 2d do., Peter McHarg, New Scotland, $5. No. 2. first prize—John Fuller, Dip. and $10. 2d do., John Witbeck, New Scotland, $5.

Draught Horses—Best pair. John Appleton, Dip. and $10.

Single Draught Horses—Best, James J. Mull, Dip. and $5. 2d do., J. P. White, Dip. and $5.

Farm Teams—1st prize. David P. Winne, Bethlehem, Dip. and $10. 2d do., Samuel Rowe, New Scotland, $5.

Stallions—1st class, No. 1, N. Rodgers, Dip. and $10. 2d do., Hiram Kelsey, $5.

Matched Horses—Best. 1st prize, Ephraim Bradbury, Dip and $10. 2d, E. Frisby, $5.

For Family Use—David Van Dyck, Dip. and $10. Best matched Horses, for light pleasure riding, Jacob Springsteed, Dip. and $10.

Discretionary Premiums—C. C. Hoff. Albany, best matched pair Horses for carriage or road. Also to W. C. Durant, Albany, and A. R. Traver, Rensselaer county.

Matched Draft Horses—1st prize, R. H. Pease, Dip. and $10.

Single Horses—First, Jacob Springsteed. Albany, Dip. and $6. Second, H. Greenman, $3. Third, Wm. Springsteed, Diploma.

Single Horses—J. P. White, 1st best, dip. and $6. 2d, E. A. Fish, $3. 3d, R. Morrison, diploma.

Saddle Horses—Single Ponies—S. M. Parke, Albany, dip. and $5. 2d, S. J. Thompson, Albany, dip. and $3.

Matched Ponies—Isaac P. Lathrop, Albany, Diploma and $5.

Best Saddle Horse—E. Frisby, Dip. and $6.

Best Stallion Colt 3 years old—Henry Barkman, Berne, Diploma and $6

Best 3 year old Gelding—J. H. Conghtry, New-Scotland, Dip. and $6. 2d, Henry Barkman, Berne.

Best 2 year old Stallion Colt—Simon Vedder, Dip. and $6. 2d, Isaac R. Fern, Rensselaer, $3.

Best 1 year old Stallion—John Kelsey, Rensselaerville, Dip. and $6. 2d, Ormie Lagrange, New-Scotland, $3.

Best pair Mules—S. M Parke, Bethlehem, $10. 2d, D. D. T. More, Watervliet, $5.

On the *Fruit* tables there were 23 varieties of Plums, 6 of Pears and the Delaware, Catawba, Isabella and Winne grapes, shown by Elisha Dorr. The three clusters of the Delaware Grape were from a vine set out a year ago last spring, that came directly from Mr. Thompson, of Ohio. They were consequently small, but the flavor such as to make this new variety in the opinion of judges here, a decided acquisition. There were remarkably fine looking Peaches shown by several individuals. J. W. Luther exhibited a splendid case of foreign grapes, including 18 varieties, and one or two unusually fine clusters of the Black Hamburgh. There was a good display of Pears from the city and country. Among the names of the fruit exhibitors, we notice those of Elisha Mosher and Phillip Myers, of Bethlehem, Samuel Warren, of New Scotland, A. Osborn, John Dingwall, R. P. Wiles, E. Corning, Jr., and H. B. Lansing.

In the *Flower* department John Wilson made an excellent show of Dahlias, and other cut flowers, bouquets, &c, and John Dingwall exhibited also beautiful asters, pansies and verbenas. A corner of his table was occupied by three roots of the famous *Dioscorea*, which ran straight down into the ground about eighteen inches,—affording some inducement, as Mr. D. thinks, to advocate its general introduction, because it will at least necessitate the *deep culture* of the ground. There were also one or two contributions of flowers from William Newcomb, of Rensselaer county.

Among the most extensive *Poultry* exhibitors were E. A. Wendell, with a good variety, including a number of fine specimens of the different breeds, several hutches of rabbits, &c—William Hurst, who seemed to have swept fully his share of the prizes—W. R. Hills, H. N. Wilkes, G. Distell, and A. J. Parker, Jr.

Messrs. Wheeler, Melick & Co., Emery Brothers, and Richard H. Pease had a good variety of *Implements* in the field, their well-known horse powers, threshers, separators, &c., being kept in active operation. Wm. Deering & Co. showed a Dederick's Vertical Hay Press, of their manufacture.

We may conclude by the remark that there is no county in the State which possesses greater resources for a good show than our own. We trust our farmers will hereafter be still more unanimous in coming forward to furnish the proof of this, that they will liberally sustain the enterprise of those of their number who have expended largely and judiciously for better animals, and that they will do all in their power to support and further the interests of their Society. We have devoted much more room to its exhibition than we might otherwise have done, from the feeling that the capital county in the State ought to be regarded in some sense as an example to others, and in the hope that we who take, in city and in country, a deep and vital interest in its agricultural progress, may be encouraged to further and still more extended labors to promote it. There is room for improvement, always, on the accomplishments of one year in the exertions of the next, and we shall expect to find ample proof in the Exhibition of another fall that the reproach which some have cast on our Agricultural community as behind the age, has been entirely cleared away, and that the progress now shown to exist has taken still deeper and stronger root among us.

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THE MICHIGAN SUBSOIL PLOW.—I have just read Mr. FRENCH'S communication on the use of the Michigan Subsoil Plow, stating the good effects following its use, which, as he says, were plainly to be seen during the late severe drought. I would like to have you or some of my older and more experienced brother farmers, inform me whether it would be advisable for us to use it here on our soil, which is a dry gravel and gravelly loam, which bears abundant crops in a wet season, but suffers severely from drought. Our manner of cultivation is to plant corn, either with or without manure, on an inverted clover sod; the next season sow to oats or other spring grain, followed by rye, after which we seed with clover, which is lightly pastured one season, then planted with corn again, &c. Could we be secured from the evil consequences of the droughts by which we have suffered so much for the past four years by the use of the Michigan plow, we should consider it a good investment of capital and labor. A YOUNG FARMER. *Pittstown, Rens. Co., N. Y.*

American Pomological Society.

This Society commenced the meeting of its biennial session at Rochester, on the 24th ult. Twenty States and territories were represented, ranging from Maine to California. The collection of fruits was unexcelled on any former occasion, notwithstanding that not one year in twenty has furnished so poor a crop. We are unable even to enumerate the contributors of the collections which came from nearly all the Northern, Middle and Western States, and some of the Southern. Some of the more prominent collections were those of Hovey & Co., of Boston, containing 250 varieties of the pear, and nearly as large from M. P. Wilder and S. Walker, of the same region; Ellwanger & Barry presented a reduced collection, rejecting all their poorer varieties, and leaving only about 170 sorts. The fruits were exhibited in "Corinthian Hall," and the tables, densely filled, occupied the whole of this vast room. The business meetings of the Society were held in a separate hall, thus avoiding any interruption to the deliberations by examinations of the specimens, which were open to view at all times.

President Wilder opened the business with a very interesting and most valuable practical address, embracing among other subjects, that of the production of new varieties, artificial modes of keeping fruits for long periods, the cultivation of the pear on quince, and the invaluable character of the objects of the Society. Many important facts on various subjects were mentioned, which we shall notice in a separate article.

The discussions were carried on chiefly by Marshall P. Wilder, Samuel Walker and C. M. Hovey, of Boston; J. S. Cabot, of Salem, Mass.; L. Berkmans and William Reid, of New Jersey; Dr. Brinckle and Robert Buist, of Philadelphia; W. R. Prince and ——— Field, of Long Island; Joshua Pearce, of Washington city; H. E. Hooker and P. Barry, of Rochester; B. Hodge, of Buffalo; Charles Downing, Dr. Grant and A. Saul, of Newburgh; M. B. Bateham, of Columbus, Ohio; A. H. Ernst, of Cincinnati; F. K. Phœnix, of Illinois; E. D. Hobbs, of Kentucky; ——— Westbrook, of North Carolina, and many others. It is not often that a greater array of intellect and knowledge is found in any deliberative body.

The list of fruits recommended in former years as worthy of general cultivation was taken up for further revision. The discussions resulting, brought out a great deal of valuable information. The list, with a very few exceptions, was left untouched. There were some objections.

The *Beurre d'Aremberg* pear has not generally succeeded at the West. A. H. Ernst, of Cincinnati, stated that a tree a foot in diameter (grafted when large) had borne for several years without producing a good specimen. On the other hand, Col. Wilder of Boston had never had any that had not ripened well, but said that it required high cultivation and a clear growth. Others had found it to require similar management, and it was voted to recommend it for general cultivation only with the best treatment.

The *Fulton* was objected to by many, on account of its small size and slow growth, although exceedingly productive, bearing with little care, and quite hardy. Among conflicting opinions, it was allowed to remain two years longer on the general list.

Beurre Clairgeau—at Cincinnati, although large and fine looking, it had proved of poor quality. J. S. Cabot, of Mass., had not found it so hardy as other trees, and had lost many trees. P. Barry said that it did not continue to succeed on the quince, but strong and vigorous on the pear, where it bears while very young, often two years from the bud. Several spoke of its poor success on the quince.

Beurre Giffard was highly spoken of by all, and had been tested in Massachusetts, New-York, Pennsylvania, Ohio, and other States. The only objection was the slow and feeble growth of the tree.

Beurre Superfin—Several were in favor of placing it on the list for general cultivation, while others had found it so unproductive, that it was concluded not yet to admit it to this list.

The *Chancellor* was pronounced by Wm. Reid, of New-Jersey, as "very good," and had always been excellent at Philadelphia. At Col. Wilder's, near Boston, it has proved to be one of the poorest in cultivation.

Doyenné Boussock succeeds finely on pear roots, and is often poor on quince. It is fine wherever tried —in Massachusetts, New-York, Pennsylvania, and Delaware, and was adopted for general cultivation.

Beurré St. Nicholas (or Duchess d'Orleans) was also placed on this list, having received unanimous commendation throughout the Northern, Middle, and Western States.

Howell—was placed on the list for general cultivation. There were many voices in its favor—it had been tried and found fine at Cincinnati, besides localities at the east.

The *Kingsessing*, an excellent Philadelphia variety, had also proved very fine at Boston. It has been proved remarkable for its freedom from rotting at the core, and has kept after being fully ripe, thirty days in a fruit room—a remarkable quality.

The *Lodge* is excellent at Philadelphia, and fine at Boston—rots at the core in New-Jersey, and flavor sometimes quite moderate in Western New-York. It remains on the list for trial.

Onondaga.—A. H. Ernst of Cincinnati had formerly regarded this as worthy of general cultivation, but for the past few years it had proved so poor in quality (although fair in appearance) that he was now prepared to place it on the rejected list, as wholly worthless. In many other places its quality had not proved good.

The *Sheldon* had been fruited five years by Hovey & Co. of Boston, who regarded it as fully equal if not superior to any other pear—an early bearer, and of uniformly good size—others entertained similar opinions—and it was placed on the list for general cultivation.

An animated discussion arose in relation to the *Vicar of Winkfield*, and many opposing opinions were expressed. With some it was hard and tasteless—other cultivators had generally succeeded in ripening it into a fine melting texture, and these attributed the failures to the fact that the fruit had never been developed sufficiently, by good culture on the tree. Unless sufficiently grown, it was useless to attempt to soften the hard, woody specimens; but where proper maturity had been attained in growth, they had been found to ripen as easy as apples.

Dr. Brincklé proposed to place the *Philadelphia* and *Richards* on the list of those promising well, which was done, although some members regarded them as yet too little known.

The *Schenck* (or Hosenschenck) was highly commended as a large, melting, valuable early pear, and and although found to be in some places of inferior quality was adopted as promising well.

The *Fredericka Bremer* was found variable and often poor, according to Charles Downing, P. Barry, Samuel Walker and others, and very liable to rot at the core

Fondante de Comice, proposed by W. Reid, was adopted as "promising well" *Beurré Langelier* was placed on the same list. *Bergamotte d'Esperen*, proposed for this list, was stated to be small, and but few knew it.

Doyenne d'Alencon (or Doyenné d'hiver nouveau,) was highly commended by many who had tried it. It grows well on quince, and the fruit keeps into spring.

Beurre d'Albret (or Poire d'Albret) was recommended by C. M. Hovey as promising well. It ripens about mid-autumn. It was called "very good" by those who had tried it, and placed on the list of those that promise well.

Bonne des Zees is frequently defective and cracks—it was not adopted as promising well.

Delices d' Hardenpont of Angers (distinct from the same of Belgium) was adopted by a faint vote as promising well, but few knowing it.

Fondante de Charneuse (or Beurré de Waterloo,) was generally recommended as being always fair, and never cracking or falling prematurely from the tree. A. H. Ernst stated that it succeeds finely at Cincinnati. It is a large pear, ripening middle and late autumn, the growth of the tree somewhat resembling that of the Bartlett. It was placed on the list promising well by a strong vote.

Osband's Summer pear—was highly commended by all who spoke of it, as a free grower, and as a handsome, good sized, and very fine fruit. It was placed on the list "promising well."

Beurré Nantais, an early autumn, very fine, and handsome pear, was placed on the same list.

The *Graslin* pear was highly spoken of by those who had tried it.

The *Dix* brought out many conflicting opinions. The quality of the fruit was highly approved, but its tardiness of bearing was looked upon as a serious objection by several. Col. Wilder said he had trees nineteen years old that had never borne, and twenty-five years old that had not borne a peck. It cracks badly on his grounds. It was also stated that B. V. French, of Mass., had trees nineteen years grafted on old stocks that had never borne. S. Walker, of the same region, had found it to bear in six years; and ——— Paul, of Mass, had had fruit on grafts but two years old. He regarded it the finest of pears. It had also proved excellent and valuable in Indiana. A divided vote prevented its being placed on the list for general cultivation, and it was admitted to the list promising well, but not unanimously.

Bleeker's Meadow produced an expression of still greater diversity. W. R. Prince highly lauded it, regarding it equal to the Seckel. A. H. Ernst, of Cincinnati, admitted that it was a great bearer and fine grower, but the fruit he found "perfectly worthless." J. S. Cabot, of Mass., thought it not worth raising. Dr. Brinckle, of Philadelphia, had found it very fine, and thought that house-ripening would have rendered it so in some instances where it had failed. All admitted its unequalled productiveness, its hardiness, and free growth, and it was stricken from the rejected list, where it had previously stood, for further trial of its merits.

Passans du Portugal was likewise sticken off the rejected list, as some esteem it.

GRAPES.

The *Isabella*, *Catawba*, and *Diana*, being already on the list for general cultivation, the *Delaware* was proposed to be added. Charles Downing had found it one of the best, hardy, and ripening well. Dr. Brinckle thought it a first-rate native grape—Dr. Grant had found it perfectly hardy, and stated that it was first discovered in New Jersey, and has been in Ohio some 25 or 30 years. It was added to the list of those that "promise well"

A. Saul proposed the *Rebecca*—it was pronounced tender, because partly of exotic parentage, not intrinsically hardy. C. Downing said it was perfectly hardy, but a moderate grower, and Dr. Grant stated that it had endured three winters, with a portion of intensely severe weather, uninjured. It was recommended as promising well.

Dr. Grant proposed the *To Kalon*. Prince and Hovey could hardly distinguish it from Catawba, and therefore thought not worth while to recommend it. C. Downing said it was quite a distinct grape from the Catawba, and darker and better than either that or Isabella. Dr. Grant said it was wholly different from the Catawba, being "nearly black" in color. A. Saul said it was "black," and thought it better than either of the others mentioned. Dr. Grant thought it one week earlier than Isabella, and C. Downing as ripening at the same time as the Catawba. It was left for further examination.

Graham grape, of Philadelphia. R. Buist recommended this, being a pure native sort, while several other of the new Pennsylvania kinds were from the exotic species, or *vitis vinifera*.

Union Village—the character of this was pronounced much the same as that of the Isabella, but a little earlier. It was commended as "promising well."

Concord. C. Downing had fruited it and found it about 10 days earlier than the Isabella—Col. Frost of Schuyler county, about six days before Isabella—W. Reid of New Jersey had found it a week earlier, and had formed a more favorable opinion of it than seeing it at Boston. H. E. Hooker of Rochester said that on his grounds it was not so early as Diana, but ripened about the same time as Isabella.

A fact was stated by ——— Hanford of Indiana, showing the importance of a dry bottom for grapes. On a *porous* soil, vines had withstood 31° below zero, but on impervious subsoil they were killed.

APPLES.

Several of the fine standard sorts at the east, succeed but imperfectly at the south-west—more particularly the Rhode Island Greening. The *Benoni* has been found fine through the west; and with the *Primate*, was recommended for general cultivation.

Rambo. This had proved fine throughout the west and in California—had been one of the hardiest trees for the hard winters of the west. E. D. Hobbs of Kentucky said his young nursery and orchard trees had withstood 26° below zero uninjured. At the north it is smaller, and needs a rich soil. In New Jersey and eastern Pennsylvania it has somewhat deteriorated—fine in western Pennsylvania. It was recommended for general cultivation by a strong vote.

King, of Tompkins county, N. Y., had many votes for placing it on the list for general cultivation, but a few being against this, it was recommended as promising well. The *Wagener* was placed on the same list. The High-top Sweeting, (same as Summer Sweet and Sweet June,) which has proved especially valuable throughout the west, was adopted for general cultivation. The *Carolina Red June* (ripening closely after Early Harvest and for several weeks succeeding,) was recommended as promising well.

The *Jonathan* elicited higher praise from all quarters than we expected. J. H. Whitney of Rochester, said that two trees on his grounds 10 years old had borne more than any 10 others—another case was mentioned of a tree in Cayuga county which bore a bushel the fifth year from transplanting. Through the west the fruit is large and fine. It was placed on the list for general cultivation by a large and general vote.

PEACHES.

Bergen's Yellow was pronounced unproductive in Western New-York and North Carolina—in Indiana, productive and fine. *Serrate Early York* blights badly in North Carolina. *Gros Mignon*, unproductive in different places. *Morris White*, very tender in Northern Indiana. *Crawford's Early* succeeds everywhere, and was adopted for general cultivation. The *Susquehannah*, one of the largest and finest Pennsylvania sorts, was placed on the list, promising well.

Hill's Chili, recommended by Dr. Sylvester, as "yellow-fleshed, fine, though hardly first rate,—productive, late, and fine for market;" and by H. E. Hooker, as "well known, homely, but productive and fine," was recommended as promising well. *Oldmixon Cling* was adopted as worthy of general cultivation. *Large White*

Cling, recommended in Downing's work on fruits, brought out conflicting views, and was erased. Dr. Brinckle proposed *Gorgas*, a seedling from Morris' White, but twice its size, and with a red skin and white flesh,—adopted as promising well. *Madeleine de Courson*, and *Hatif de Ferriers*, were also similarly adopted. *Early Tillotson* was stated by ——— Hanford of Northern Indiana, to have no equal there as an early, productive and fine peach; ——— Westbrook said it was highly esteemed in North Carolina—but several at the north objected to its strong liability to mildew. ——— Thompson, of California, said that the *Strawberry* peach proved fine there.

Cherries.

Black Eagle—unproductive in North Carolina—in Massachusetts, always takes the first prizes, and is decidedly the best variety, according to Col. Wilder. The *Downton* was erased from the general list, for its unproductiveness. The *Napoleon Bigarreau* was stated to rot badly in Massachusetts and in some parts of western New-York—while it was strongly recommended as succeeding well in New-Jersey, Pennsylvania, Delaware, Newburgh, N. Y., and in northern Indiana. It was put on the list "for certain localities." *American Amber*,—conflicting opinions as to its productiveness. The *Belle de Choisy* was generally regarded as unproductive—the *Rockport Bigarreau*, was placed on the list "promising well." *Belle d'Orleans*, *Coe's Transparent*, *Early purple Guigne*, *Gov. Wood*, and *Reine Hortense*, were all promoted to the list for general cultivation.

Plums.

Frost Gage was erased from the list on account of its liability to the black knot.

McLaughlin. Col. Wilder said it had proved exceedingly fine away in Maine and Nova Scotia, where the mercury goes to 30° below zero, and everywhere else he has heard from it—tree very hardy, and fine grower and bearer, and fruit about equal to Green Gage.

The *White Damson*, *Fellenberg* or *Italian Prune*, *Duane's Purple*, *German Prune*, *Gen. Hand*, *Bradshaw*, *Large Black Imperial*, and *Pond's Seedling*, were placed on the list of those promising well. *Prince's Yellow Gage* and *Lombard* were recommended for general cultivation.

Raspberries.

Orange and *French*, were placed on the list for general cultivation, and the following recommended as promising well, viz: *Cushing*, *Cope*, *Thunderer* (from Rivers, resembles Franconia,) *Ohio Everbearing*, *American Red Prolific*, and *Catawissa*. The *American Red Prolific* was said by W. R. Prince to be the great market raspberry of New-York city, habit like that of Blackcap—also recommended by W. Lawton and others. Some had found it badly affected by blight or fungus on the leaves. The Catawissa was pronounced by Dr. Brinckle as the best bearer he ever saw. Prince said it is a perpetual variety of the American Red Prolific, already named.

Strawberries.

McAvoy's Superior, *Hooker*, *Genesee* and *Longworth's* Prolific, were recommended as promising well.

New-York city was designated as the place for holding the next biennial session of the American Pomological Society.

Agricultural Fair of Upper Canada.

[Correspondence of the Country Gentleman.]

The Eleventh Annual Fair of the Agricultural Association of Canada West, took place at Kingston, Sep. 23—26. Though not quite equal to the Fair at Coburg last year, (an extended account of which will be found in the Co. Gent. of Oct. 18, 1855, vol. 6, p. 256) it was a very fine exhibition, alike creditable to the Association and the Province. The citizens of Kingston had provided beautiful grounds, about two miles from the city, and erected a "Crystal Palace," at an expense of about $8,000! for holding the exhibition of fruits, flowers, domestic manufactures, specimens of fine arts, &c. I apprehend that an effort will be made to have the Fair permanently located at Kingston, or at all events, to have Kingston one of three or four places on Lake Ontario, at which the Fair shall be regularly held.

Last year we said that "the show of *Short-horns* was particularly fine;" this year it was superior to that at Coburg. It is gratifying to find that this excellent breed of cattle is so popular with the farmers of Canada West; and still more so to witness the marked improvement in the animals shown at each succeeding annual exhibition. F. W. Stone, Esq, of Moreton Lodge, near Guelph, C. W., exhibited a large number of Short-horns which I have never seen excelled in this country or in Great Britain. He has within the last two years imported fifty-five head of the best Oxford and Dutchess Short-horns that money would purchase. He attended the recent exhibition of the Royal Agricultural Society at Cheltenham, and bought several of the prize Short-horns, as well as a number of South Down and Cotswold sheep—some twenty-eight head in all. Wm. Miller of Pickering, and Geo. Miller of Markham, also exhibited some superior recently imported Short-horns. Ralph Wade, Jr., of Coburg, exhibited eleven head of good Short-horns, and Messrs. Miller and Beattie of Pickering, and W. & R. Armstrong of Markham, showed each an excellent yearling bull, recently imported.

Next to the Short-horns, the *Galloways* were best represented. They have been imported into the Province only within the last few years, but it is evident that they are destined to become popular. The judges in their report say that they "consider this breed of cattle very valuable, and suited to this country and climate." They are a large, hardy breed of polled black cattle, of excellent symmetry and handling properties. In winter they are covered with long shaggy hair, and their hides would make excellent substitutes for Buffalo robes. Geo. and Wm. Rodick of Hamilton township, and W. R. Graham, Esq., of Vaughan, were the chief exhibitors. Four head belonging to the latter gentleman, were brought direct to the fair ground from the vessel in which they were imported. They were in excellent condition, having suffered little from the voyage—a good proof of their hardiness.

There were 40 entries of *Ayrshires*, and among them some good specimens of this justly celebrated breed for dairy purposes, but on the whole they were far inferior to those shown at some previous Fairs of the Society, particularly those at Hamilton and London.

Did we not know that in the western portion of the Province there are many large and excellent herds of *Devons*, we should suppose from the present Fair that this old and beautiful breed was not fully appreciated in Canada. There were but 15 entries, while of Short-horns there were 88; and what is worse, very few of those exhibited were at all superior.

Herefords are either unknown or unappreciated in Canada. There were but 4 entries! We should have been glad to have seen the fine herds of E. Corning, Jr. and W. H. Sotham of this State represented there. Many of their splendid animals were at Watertown, I understand, awaiting our own State Fair, during the exhibition at Kingston, and it would have been easy to have shown them at both places.

The show of *Horses* was far inferior to the grand display made at Hamilton in 1853, or even to that at Coburg last year. There were nearly two hundred entries, and among them some very superior horses, especially among the "Stallions for agricultural purposes"—a class of heavy horses of which we have few representatives in this country.

In sheep the entries were as follows: Leicesters 128;

South Downs 43; Cotswolds 26; Merino and Saxony 20; Cheviots 16.

It will be seen that the Leicesters are by far the most popular breed of sheep in Canada. There were 36 two-year old Leicester rams, and when drawn out, and placed in a row for examination by the judges, they made a grand display, as did also the 22 yearling rams. James Petty of Hay, exhibited a splendid ram, imported this summer; James Dickson of Clarke and C. Walker of London, also showed some magnificent Leicesters. Wm. Miller of Pickering, exhibited 28 head of Leicesters, many of them imported, and all remarkably good. Geo Miller of Markham, and many others, also showed excellent Leicesters.

The show of South Downs was small. For some cause or other, this breed is not as popular in Canada as it deserves to be. Such sheep as those shown by John Spencer, of Whitby, and some other South Down breeders, ought to commend themselves to Canadian farmers.

We are glad to find such excellent Cotswolds in Canada. F. W. Stone, Esq., of Moreton Lodge, near Guelph, C. W., showed a large number of Cotswolds, many of them recently imported, which we have never seen surpassed. Geo. & Wm. Miller, and a few others, also showed good Cotswolds.

Cheviots were shown by Jas. Dickson, of Clarke, Wm. Rodick, of Hamilton, and J. Hawkins of Wolfe Island.

The show of Pigs was far better than at Coburg. There were 21 entries of the "Large Breed," and 71 of the "Small Breed." Of the former, a Yorkshire boar shown by R. Coates, of Oakville, and a Yorkshire sow belonging to C. A. Jordison, of Port Hope, and a Nottinghamshire boar shown by John Scott of Montreal, were conspicuous. Of the latter, several pens deserve notice. A fine Suffolk boar, shown by Mr. Logan, of Montreal, attracted much attention. Thomas Briggs, Esq., of Kingston, also showed excellent Suffolks, and also some beautiful Essex, (of Fisher Hobbs' breed,) and a cross between the Cumberland and Essex. James Durand and Major Sandler, of Kingston, also showed good Suffolks. John Hitchins, of Amherst Island, showed a small black breed, a cross between the Essex and Chinese, which was excellent. F. W. Stone, Esq., of Moreton Lodge, near Guelph, showed some recently imported "Small Yorkshires," perfect beauties. James Ramsey, of Pittsburg, and J. W. Parmenter of Gananoque, showed good Berkshires.

The show of Poultry was very large and excellent. The "chicken fever" has not yet subsided in Canada, judging from the immense number of fowls of the Asiatic varieties shown.

There were fewer implements exhibited than at many previous Fairs. Henry Going of Wolfe Island, exhibited a mowing machine constructed on a new principle, which bids fair to be of great value. He also exhibits a Cultivator with the teeth fixed on movable bars, so that they will adjust themselves to any irregularities in the ground. H. D. Johnson of Hamilton township, exhibited a Reaper with a new contrivance for obviating the side draft, which strikes us favorably. John Lent of Cobourg, shows a new Potato-Digger, which is very ingenious, but we fear too complicated. The potatoes are thrown up with a shovel plow on to a revolving carrier, on the principle of the common straw carrier. This is so constructed that the soil falls through, and the potatoes are delivered in a basket. We heard a farmer remark that on his farm he should "get more stones than potatoes." S. Eckhart, of Unionville, also exhibited a Potato-Digger, which is said to make good work. Two small plows in front of the machine take a furrow from each side of the row; a scoop shovel throws up the potatoes, and a revolving harrow follows to bring the potatoes to the surface.

The show of wheat was splendid. The Canada Company offer a prize of £25 for the best twenty bushels of wheat—the prize wheat to be given to the company. There were some eight or nine entries for this premium, and finer samples of wheat we have never seen. One weighed "67¾ lbs. per bushel." Of other grains, vegetables, dairy products, &c., the show was far inferior to that at Coburg last year. The same may be said of fruits, flowers, &c.

It was decided to hold the next fair at Brantford. Mr Alexander of Woodstock, was chosen President—an excellent choice. H.

The Ohio State Fair.

[Correspondence of the Country Gentleman.]

Cleveland, *Ohio*, *Sept.* 25, 1856.

The fair ground here is beautifully located, and all the arrangements are most capital. It lies within the corporation limits, and thus easy of access from the hotels. It is perhaps rather too cramped, but lying where it does, this could not be avoided. The first day was, unfortunately, rainy, and on the second, the wind blew strong and cold, and there were occasional showers, so that the attendance on neither day was very large. To-day, the third day, being pleasant, though cool and rather windy, the crowd has been immense. There must have been over 40,000 persons on the grounds.

The show of stock has not as a whole answered my expectations, for though there have been a number of really superior animals exhibited, there have also been quite a number of very inferior ones.

The *Cattle* were shown this year in classes, in which the Short-horns and Herefords, Devons and Ayrshires competed together. I scarcely fancied this arrangement, for it must always be too one-sided. Though there were some very good Herefords shown, the Short-horns carried all the prizes very easily. The number of Short-horns entered, was little over one hundred—that of Herefords was very much smaller. The competition in aged Bulls of this class was very close. 'New-Year's Day,' the property of C. M. Clark & Co., won the first prize one day, and Mr. Corwin's 'Crusader' won the sweepstakes the next. They are both very fine animals. Of younger bulls, there were but two or three really good ones. Mr. J. M. Trimble exhibited a bull calf—the first prize in his class—called 'Victor,' which he purchased at Mr. Alexander's last sale, and for which he refused on the grounds $1,500. The competition in the aged cow ring was also very close; Mr. R. G. Corwin's cow, "Scottish Blue Bell," won first prizes in both her own class and in the sweepstakes.

The class of Yearling Heifers was very good. The first prize was carried by "Viola," a superb heifer, bred and owned by Mr. R. G. Dun. Messrs. Trimble, Hankins and Corwin also showed some meritorious animals in this class. 'Erin Strawberry,' bred and exhibited by R. G. Corwin, was first in the calf ring. She was sold to Hon. S. Meredith of Indiana, for $2,000. In the aged bull ring was shown a very superior Hereford bull, 'Curly.' He is decidedly the best Hereford I have ever seen in this country. He was bred in England, and is the property of Mr. Aston, Elyria.

The show of Devons and Ayrshires was limited. The former were generally good, especially the aged bulls. Lewis F. Allen and Ambrose Stevens both had animals of this blood here.

The number of *Horses* on exhibition was large, though like the cattle there was a small proportion of really good ones. The Black Hawk and Morgan stock were decidedly in the majority. Of horses of note there were on the ground 'Fashion' and two of her colts; old 'Grey Eagle,' of the thorough-breds;

'Champion Black Hawk,' who won the prize for the five best colts; 'Bush Messenger,' 'Dav. Hill,' and 'Boston,' of roadsters. There were some very promising yearlings and two-year-old horses shown, one of which was three parts 'Black Hawk.' He looked large and vigorous, and did not show in the least degree any lack of constitution.

The *Sheep* turned out in large numbers and were not on the whole superior. South Downs seemed to preponderate. The number of *Hogs* was limited. There were several very fine Suffolks. The show of *Implements* was very good. The mowers and reapers, and corn and cob mills, and corn planters, were in abundance.

The fair has certainly been very successful to the Society, and we have to express many thanks to the President, Mr. LADD, the Secretary, Dr. SPRAGUE, and to the various members of the board for their kind attentions.

The Kentucky State Fair.

[Correspondence of the Country Gentleman.]

The show of the Kentucky State Fair, like that of Ohio, opened unpropitiously. The first day was overcast and exceedingly cold, and the second was ushered in by a snow storm, which however did not last long. About noon of the second day it cleared off, and the weather since has been pleasant. The receipts were undoubtedly lessened by the disagreeable weather on the first two days, but the number of people who continued to flock upon the grounds during the remainder of the week, must have brought the proceeds fully up to the expectations of the Society. The grounds were very capitally arranged and conveniently situated, being bounded on one side by the Lexington and Covington Railroad, and on the other by the Paris and Lexington pike. The manner of exhibiting the stock was different from anything of the kind that I have ever seen, and according to my judgment is decidedly the best.

They have a large amphitheatre capable of seating 5000 or 6000 people. In the center of the ring which is 165 feet in diameter, is a stand two stories in height. The lower part is occupied by the judges, and the upper by a band of music. The animals are brought into the ring in the order of the exhibition, and there examined by the judges, and the awards made in the sight of all those who may have been fortunate enough to secure either a sitting or standing place.

The first day was devoted to the judging of Shorthorns, the only breed which is acknowledged in Kentucky. The number exhibited was very large, and they were, with scarcely an exception, very superior animals. It was without doubt the finest show of Shorthorns ever had in this country, and I very much doubt if Old England can beat it.

In the old bull class, Brutus J. Clay's 'Locomotive' took the first prize. 'D'Otley,' the property of Major J. Duncan, the second. The third went to C. S. Brant. The show of three-year-old bulls was very fine. R. A. Alexander took first prize with 'El Hakim,' and second with 'Sirius.' 'Lord Eglinton' was third. In two-year-old, Mr. McLelland's 'Townley' was first, and 'Francisco,' owned by Mr. Hughes, second. Mr. Campbell's bull was third. Of the yearlings, 'Royal Duke, the property of James B. Clay, was first. C. T. Garrard was second, and L. G. Bedford's bull was third. In the calf ring C. T. Garrard, A. Renick, and G. M. Bedford took first, second and third prizes.

The show of aged cows was very superior. R. A. Alexander took all three prizes with 'Vellum'—the first prize cow at the Royal show of England last year,—'Duchess of Athol'—a genuine Duchess—and 'Mazourka,' a cow purchased by him at the sale of the Northern Ky. Imp. Co. in 1853, for over $3,000. Of three-years-old, 'Magdalene,' Benj. Warfield, Jr.'s,—'Louan, 2d,' Major J. Duncan's, and 'Cannie,' R. A. Alexander's, won respectively first, second, and third prizes. In the two-year-old ring, Dr. E. Warfield's 'Princess Royal' was first, R. A. Alexander's 'Lady Valentine,' second, and a heifer of B. J. Clay's, third. Yearlings, Mr. Alexander won first, G. M. Bedford, second, and C. T. Garrard, third.

In sweepstakes premium for best bull, R. A. Alexander's 'El Hakim' carried the prize. The ring of best cow or heifer of any age was decidedly the finest sight of the exhibition. I do not believe so many good, or rather superlative, animals were ever shown together before. Mr. Alexander's Vellum was again successful.

The sweepstakes prize for the best herd of bull and five cows was also taken by R. A. Alexander. Brutus J. Clay took the second. About three parts of the prize winners were either imported animals or the first cross from them, which shows pretty conclusively that the English have attained a higher point in breeding than we have. With the animals now among us, however, I see no reason why we should not do fully as well if not better than they do in England. We have thus far, I believe, beaten them in everything we have undertaken, and why should we not do so in breeding choice stock.

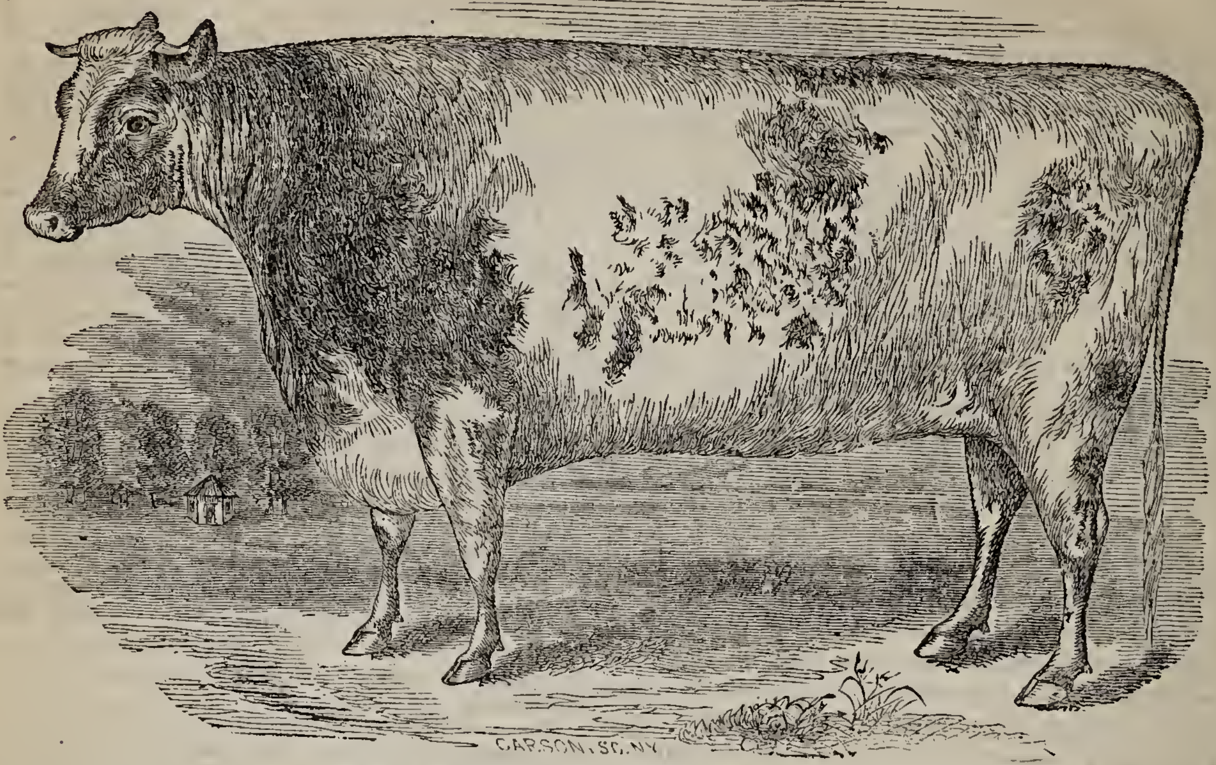
The show of hogs and sheep was also on the first day. The number of the former was large and the quality was superior. I noticed but one or two pens of thorough-breds. They were mostly made up of crosses of the Woburn, Irish, Berkshire and Suffolk. One of the exhibitors in this class, Sam'l H. Clay, has tried several experiments as to feeding hogs with corn in all its ways, and has proved very conclusively that corn meal boiled is decidedly the best. The show of sheep was small and not very superior. Mr. Alexander showed some good South-Downs.

The following days were devoted to the show of horses, mules and asses. The show of blood horses was not large, though some very fine animals were exhibited. John M. Clay, Keen Richards and Dr. Elisha Warfield, were among those whose horses won prizes. In the draft-horse ring there were some very fine specimens. The number of these exhibited was, however, small.

Gov. Morehead delivered an address at noon on the second day, but owing to the crowd and the wind which was blowing at the time I was unable to hear him.

The third day was devoted to the show of fine horses and mules. The quality of the animals shown in both rings was superior. There was not, however, an approach to the number of mules that I expected to have seen. The mules that they are now breeding seem to approach much nearer the formation of the horse than the jack, and it has been a query with me whether the change would not rather lessen than increase the value of the hybrid.

The fourth day was devoted to the show of harness horses. Messrs. Melendy of Ohio, had their celebrated 'Champion Black Hawk' there. The Kentuckians are certainly much behind in this class; but as they are now turning their attention more to the raising of this breed of horses, they will undoubtedly much improve them. The show of asses which took place on the last day was exceedingly interesting and amusing to one who had never seen anything of the kind before. Such horrible ugly brutes I think I never saw; how any one can find anything to admire in them I cannot imagine. The prizes, as far as I could judge, seemed to be given more for size than anything else. I was indebted during my stay there to the different officers of the Society, and to the various breeders living in the vicinity. New-York was largely represented. I noticed on the grounds, Messrs. L. G. Morris, S. P. Chapman, J. Wadsworth, L. F. Allen, Samuel Thorne, J. R. Page and Col. Sherwood.


CARSON, SC. N.Y.

Short-Horn Durham Heifer Empress.

The second volume of Allen's Herd Book gives her pedigree as follows:—Roan, calved 5th Dec., 1853, and got by Vandall (1,065) out of May Dacre by Crowder (386), Milkmaid by Accident (191), Lady Macallister by Pontiac (124), Lady Durham by San Martin (2,599)—the Durham cow imported in 1817.

She was bought at the Illinois State Fair, where she had taken the first premium as a yearling, for five hundred dollars, by Hon. John Wentworth for the Illinois Breeding Association at Summit, Cook Co., Illinois, of J. A. Brown, her breeder.

Experiment with Guano on Potatoes.

Friend Tucker—On the 21st of fifth mo. last, I planted 6½ bushels of potatoes on half an acre, and in 23½ rows a trifle more than 20 perches long.

The ground had been deeply plowed early in the spring, and after the potatoes were dropped, 9½ three-horse loads of well-rotted stable manure were shaken into 22½ of the rows, and on the other a little dirt was drawn with a hoe and 17 lbs. of Peruvian guano scattered along it. All the rows were covered lightly, say 4 inches deep, with the plow.

We dug them the 26th inst., being careful to keep the guanoed row and one next to it distinct. The manured row yielded 184 lbs. of clean potatoes, and the guanoed row 224 lbs. The soil was alike over the patch, and the conditions of the experiment were exactly fair, to the best of my knowledge.

This result gives a gain of 31⅓ bushels of 60 lbs. (which is rather more than is usually given for a bushel,) per acre in favor of the guano. If we allow 24 bushels of merchantable potatoes and the rest for ex penses, and sell them at $1 per bushel, the guano will beat tho manure by the whole of its own cost.

Thus 800 lbs. of guano at $60 per ton of 2000 lbs.,	$24 00
24 bushels potatoes at $1,	24 00

And leaving 19 loads of manure as a clear gain, which is an item of no small moment in this section. Potatoes are now selling at $1 per bushel in Philadelphia, and guano at $60. Davin Evans. *Willistown, Chester Co., Pa., 9 mo., 29th.*

New Hand Corn Planter.

Messrs. Luther Tucker & Son—Many inquiries have appeared in the Cultivator for the *beſt* hand corn planter. Every one has its admirers, and they all possess many valuable features, but the general objection is that they are not well adapted to planting *pumpkin* seeds, and that they are liable either to clog or drop the corn irregularly. I was granted Letters Patent Sept. 9th, for an improvement in hand corn planters, that *will* accomplish the desired object. My machine is constructed with a seed tube and plunger similar to all hand planters, but otherwise it differs essentially, being operated simply by taking the plunger in the hand, setting the machine upon the ground and forcing the plunger into the soil. As the plunger descends it forces the seed which may be in the tube into the soil, and at the same time causes the *wheel* (which is *six sided*) to turn a sixth of a revolution and deposit seed into the end of the tube for another descent of the plunger. By employing the *hexagonal wheel* for conveying the seed into the end of the seed tube, all the *disadvantage* arising from the use of a flat slide is avoided—the seed falls upon the *periphery* of the seed wheel, which has *surface yielding plates* that allow the seed, if too large or too many in number, to pass the edge of the hopper bottom uninjured. The surface yielding plates also allow of its ready adjustment to plant cotton or other fine seeds. I hope to be able to publish engravings of it in your valuable paper at an early date. Heman B. Hammon, *Patentee. Bristolville, Trumbull Co., Ohio.*

The Cultivator for 1857.

The great benefits of reliable agricultural reading, both to individuals and communities, have been too well established during the past twenty-five years, to require any demonstration. But even at this time if one compares the number of farmers as returned by the census, with that of the subscribers to all the agricultural papers published, he will find the latter to compose but a very small fraction of the whole. This is true of every state, of every county, probably of every town, from Maine to Oregon.

Every farmer, however small his farm, can well afford to take a good agricultural paper,—to assist him in the erection of suitable buildings and fences; in making and saving manure; in selecting proper implements and the best kinds of stock and fruit; in feeding and fattening his cattle; in managing his land and crops; through it obtaining the united wisdom and experience of science and the best practical farmers, not only of our own country, but of the whole civilized world.

And every community is benefitted in the ratio of the prosperity of its individual members; the shiftless diminish, while the thrifty increase; it becomes attractive to strangers; every man derives good from the well-being of his neighbors; he can make better bargains, enjoy pleasanter society, and in a thousand ways, direct and indirect, will have cause to rejoice at the common advancement; he can put in practice new systems or buy new implements, without necessarily being esteemed a fool till he has proved himself a wise man; in the very change of public opinion so that it shall support instead of discouraging progressive agriculture, wonders will be effected for the common good. It is true that all this is only to be brought about by slow degrees.

In these few words, we glance briefly at some of the old arguments in behalf of agricultural reading, but refer to the experience of every thinking man, if additional ones are necessary. It is believed that The Cultivator offers some peculiar inducements to the Friends of Agricultural Progress, as especially adapted to perform the best service for its promotion at the least cost.

I. It is an old and recognized authority in its sphere. Buel, Gaylord and Norton have been among its contributors in the past, and it now pays more for editing, secures the services of a better class of writers, and has a larger list of practical contributors among its readers, than any contemporary.

II. It is cheaper, when the expenses of its publication are considered, than any other similar journal. Its typography and paper, as well as contents, are of a superior kind. It forms an illustrated yearly volume of 384 pages, which if published first as a book, could not be purchased for several dollars, but which in its present monthly form, is offered for only Fifty Cents.

III. To clubs peculiar inducements are presented. The Illustrated Rural Register, of the two numbers of which for 1855 and 1856 nearly Fifty Thousand copies were sold, has been uniformly pronounced far the best and most comprehensive work of its size ever published, and the cheapest at its price of Twenty-five Cents. It is *presented* to each member of a Club of Ten for the Cultivator—thus adding 144 pages and 150 engravings to those contained in that, ALL FOR HALF A DOLLAR.

There is room, as we saw in our first paragraph, for a Club of Ten at every post-office in the country. And we believe that there are many more than this number who would cheerfully subscribe, if an opportunity of knowing the facts of the case were given them.

The politics of the year are nearly over; as soon as the "crisis" has been weathered, may we not depend on our friends for a word in behalf of the Cause of Agriculture? Help it on, as you can, every reader! you will be doing a service to your neighborhood, which will repay you, and with interest, in the future.

The number of the Register for 1857 is one on which more labor and money have been expended, than on either of its predecessors. It can but "take the eye" of everybody that sees it. We shall immediately send sample copies to our Agents, and if any one who has been in the habit of making up a club in past years is omitted, we shall be much obliged *if he will inform us without delay.* ☞ Or if any subscriber will try to get one together, we will be happy to furnish him a copy to aid in the effort.

Particular attention is asked to our Premium List for 1857, and all our friends are earnestly invited to enter into competition. There has not been as much competition heretofore as would be supposed, and they have been awarded, with only two or three single exceptions, to sums of money less than double their own amount. Here is an opportunity for one to aid materially in a good cause, and at the same time receive something for his trouble.

Terms of the Cultivator for 1857.

One copy of the Cultivator, ··········	Fifty Cents.
Ten copies Cult. and ten of the Register, ··	$5 00
Twenty of each (*with an extra one to the getter up of the Club*,) ····················	$10 00

Terms of the Country Gentleman, for 1857.

One Copy one year, in advance, ··············	$2·00
Three Copies do. do. ··············	5·00
Five do. do. do. ··············	8·00
Ten do. do. do. ··············	15·00

Terms in the British Provinces.

As we have to pre-pay postage on all papers sent to the British Provinces, EIGHT CENTS must be added to the above terms for each subscription to the Cultitator and Register, and TWENTY-SIX-CENTS for each subscription to the Co. Gent. Thus:

Ten copies of the Cult. and Reg. will be·	$5·80
Twenty do. (and one to Agent,) ·········	11·68
Three copies Co. Gent., one year,········	5·75
Ten do do do ········	17·50

☞ For list of Premiums offered see last page of this number.

☞ Clubs need not necessarily take their papers from the same Post-Office—they will be sent to as many different offices as may be required.

☞ The money in all cases to accompany the order, and subscriptions to the Cultivator invariably to commence with the January number.

☞ We cannot supply back vols. of the Co. Gent. The Cultivator may be had from the commencement of the Third Series in 1853, neatly bound—price post-paid, $1 per vol.

The State Fair at Watertown.

The northern part of the State last week seemed determined to equal or exceed the efforts which gained so much eclat for the southern tier of counties at Elmira a year ago. The weather only was against them. Continued rain drizzled or poured through the atmosphere, soaked the soil, and must have thoroughly dampened public enthusiasm in common with everything else. Sunday night the Floral Tent was blown down and all its decorations utterly destroyed. Monday it was rainy and windy. Tuesday and Wednesday no better, and Thursday we woke once more to a renewal of the old experience. Not until towards noon did the ground give signs of becoming any drier under a cold wind, and through the whole day there was scarcely a glimpse of warm sunshine. Friday the skies were more propitious, but it was then too late entirely to retrieve the misfortunes of the past. The numbers present on the last two days were very good, but the total receipts are only in the neighborhood of $8,000. Very few ladies, and not many men besides those personally interested in the Society or in what was shown, could brave such a storm, and the absence of families the first days, as well as large numbers from a distance, who would otherwise have been out, cut down the usual attendance vastly.

The grounds were very accessibly located and could scarcely have been better adapted to the purpose. The citizens of the place did all in their power to facilitate the objects of the exhibition. The excellent arrangements of the railroad running through it, under the skillful superintendence of CARLOS DUTTON, left far less room for grumbling than usual on such occasions. Watertown is a more active, enterprising and beautiful town than many are aware. She is already well provided with water and gas, churches, newspapers, hotels and banks, though it is but a few years since she emerged from the woods, and several extensive fires have been serious obstacles in her way.

We cannot think the show in all respects quite equal to some that have preceded it; in several it will, however, rank as considerably superior, and was nowhere wanting in interest. The CATTLE included a fair turn-out of Short-Horns, a remarkably fine one of Devons and Herefords, a very good collection of Ayrshires, with one or two specimens of the Jersey and Galloway breeds, thus affording ample room for comparison between them all. The HORSES were excellent in number and quality. The exhibition of SHEEP was particularly good, and that of SWINE has seldom been excelled. In DAIRY PRODUCTS, as might have been expected, there were more samples present than usual, but less than we had hoped for in Jefferson. Machinery and Implements, Grain and Seeds, Poultry, Fruits and Flowers, Manufactures, Needle Work, &c., each occupied an interesting department, embraced an extensive variety, and—especially the first—was entirely creditable to the Society and the State.

Among the *Short-Horns* were Messrs. Hungerford & Brodie's fine bull 'St. Nicholas,' and cows 'Lady Newham' and 'Empress Josephine,' which received first prizes as imported animals—and 'Nigel,' shown by J. W. Taylor, of East Bloomfield, and imported by R. A. Alexander, of Ky., which took the second premium. The aged bull 'Majesty,' belonging to Thomas Gould of Aurora, took the first prize in its class—an animal of marked excellence. The two-year-olds included the beautiful bull 'Echo of Oxford,' white, of Mr. Becar's breeding, and shown and owned by Enoch Marks of Camillus, and Mr. Rotch's 'Omar Pacha,' a very superior animal in many respects, especially *quality*. Other good bulls were those of Messrs. W. M. Bullock of this county, Gill & Bro., of Jefferson, R. G. Coffin of Dutchess, D. D Campbell of Schenectady, and one belonging to Mr. Davis of Toronto, which took the first prize among foreign Short-Horns.

The *Herefords* in the stalls of George Clarke of Otsego attracted much attention—including the fine bull "Charles II,' imported in 1852. M. C. Remington of Cayuga showed 13 head, among them the two-year old bull 'Climax'; A. & H. Bowen of Orleans, 10 head—making altogether a better display than one often sees of this really very beautiful, and we believe profitable, breed of cattle. Why it has yet so little popularity, we can scarcely understand. There is certainly room for both Short-horns and Herefords in this wide country of ours. A Fat Cow shown by E. Corning, Jr., of this city, was spoken of by the Judges as "the best Fat Cow on the grounds, and the best the committee ever saw." She was indeed a magnificent animal, and confessedly superior to any Short-horn there. She received a premium equal to the first and a diploma beside. Her form would speak as well for the quantity, as the general acknowledgment of critics does for the quality of Hereford beef.

Among the *Ayrshires* we find the well-known herd of E. P. Prentice of this city, represented by seven head, on which four first prizes and two second ones were awarded. Messrs. Hungerford and Brodie had a fine display of this breed, and we see that several of the 15 shown by them occupy prominent places on the premium list—among which we should not omit to name especially a pair of beautiful imported ones—bull and cow—to which were awarded the first prizes. Lyman R. Lyon and H. F. Humphrey of Lewis county, and J. F. Converse of Jefferson, were other exhibitors, each of them receiving one or more of the same compliments from the committee.

Of *Devons*, as already remarked, the turn-out was excellent in numbers and quality—perhaps better on the whole than that of any of the other breeds. R. H. Van Rensselaer's herd, an account of the sale of which on Thursday will be found below, was a very fine collection, numbering twenty-five cows and heifers, on which a number of premiums were awarded, and three bulls, 'Mercury,' 'Mammon,' and 'Meganticook,' the last of which received the prize as the best imported animal, and is one of the very finest that was ever brought into the country. The sale was unfortunately a forced one, and the prices Mr. V. R. obtained are no criterion of what the stock was really worth. C. D. Bent, of Cayuga Co., had ten head on which several prizes and a silver medal were received; William Johnson, of Geneva, showed the bull 'Torence,' which won the first prize, and was offered for sale without finding a purchaser; Enoch Ottley, of Phelps, four head, including a fine cow to which the first premium was given; and E. G. Cook, of Jefferson, Silvanus Burtis, of Ontario, Hon. A. B. Conger, of Rockland, John R. Chapman, of Oneida, Merriam & Coe, of Lewis, J. W. Collins, of Wayne, A. M. Dart, of Delaware, M. G. Norton, of St. Lawrence, and S. Brown, of Seneca, each exhibited a number worthy of notice, including among them many of particular excellence. R. Coates, of Oakville, Canada, showed a fine bull on which the first prize to foreign Devons was awarded.

The only *Alderneys* or Jersey Cattle on the grounds, we believe, were a bull and cow shown by E. P. Prentice of this city; the only *Galloways* those of William Rodick of Coburg, Canada—a notice of which will be found in our correspondent's account of the Kingston Fair.

Beside Mr. Corning's Cow, already referred to, there were several head of *Fat Cattle* shown by John W. Taylor of Ontario county, which were very good. A three-year old Short-horn heifer was shown by C. Baker of Batavia, bred in Kentucky, which if not entered in this class, certainly should have been, if flesh was the only condition—she was said to weigh 2178 lbs.—

to have been kept on grass only, and it was thought she was with calf, though it seemed scarcely probable.

Among *Working Oxen* there was not much competion if we except one or two large and rather showy teams from Jefferson county, and six yoke of nearly full blood Herefords owned by Geo. Clarke of Otsego. Of these last, which were very well matched and broken, the committee say "six yoke of like quality are very seldom seen upon any of the farms of the State, and we recommend an award of the Society's *silver medal*, as a testimony of our approbation of Mr. Clarke's public spirit in making such a splendid addition to the show of the Society."

As evidence of the value of the Hereford blood as a cross upon our common stock, we may make an extract from the report of another committee in regard to four cows shown by Mr. Clarke, of the same grade as the above oxen: "They are a cross from the native cow and Hereford bull, so often repeated on the progeny as to leave those exhibited within one-sixteenth of being thorough-bred Herefords. They are extraordinarily fine animals, and have arrived at a wonderful degree of fatness, although, as Mr. Clarke informs the judges, fed on poor pasture."

Among the SHEEP, the *Long-Wooled* included a fine show of forty Leicesters, many of them imported, shown by Hungerford & Brodie, of which two rams and six ewes have but just arrived in the country—and several head exhibited by John McDonald of Herkimer, and John R. Chapman of Madison. Of the *Middle-Wooled*, there were fine South-Downs shown by E. Corning, Jr., of this city, Thomas Betts of New-York, E. G. Cook and G. B. Wright of Jefferson, and A. Howland of Cayuga. Wm. Rodick, of Canada, exhibited samples of the Cheviot breed. A. J. and A. Dyke, of St. Lawrence, and A. M. Dart of Delaware, were the principal exhibitors of *Spanish Merinos; French* were shown by E G. Cook, and Green & Maxson of Jefferson; *Saxons* by the same, who also, together with O. Howland and J. W. Collins, showed several Fine-Wool crosses. Cross-breeds of Coarse or Middle-Wool were exhibited by O. Howland, J. R. Chapman, Wood & Eastman, and George Webb, the last two of Jefferson Co. Good *Leicesters* were also shown by C. A. Jordison of Port Hope, C. W., and Merinos by Wm. Rodick and John Spencer, from the same province.

To the SWINE we must refer as briefly as possible, but cannot compliment too highly the Yorkshires shown by Hungerford & Brodie in the class of *Large Breeds*—one or two of them imported but the other day. Hon A. B. Conger showed excellent Suffolks and Essex among the *Small Breeds;* Green & Maxson and Alfred Horr of Watertown also exhibited in this class.

Te number of exhibitors of HORSES was quitee large, and some of those shown very fine animals. Major Patrick, the efficient general superintendent of the grounds, had a magnificent saddle horse; E. Corning, Jr., a pair of splendid bay carriage horses, both of which took first prizes in their respective classes. In Matched Carriage Horses over 16 hands, J. W. Bostwick, of Lowville, took the first prize; in the class of 14 hands, Ed. Marsh, of Henderson; in that of aged Stallions of all-work, Truman Cone, of Lewis county; for Draught Stallions, John G. Hermans, of Wayne; for best three year old Stallion, G. A. Childs, of Malone; two years old, George Benedict, of Vienna; yearlings, Sylvanus Strong, of Madison Co. Among other exhibitors we notice the names of T. and Anson Hungerford, A. Blunt, A. C. Pierce, D. Stepelin, Henry Rich, and others of Jefferson Co., N. Dayton and J. B. Champion, of St. Lawrence, besides many others whose animals we should be glad to notice more at length. R. Coates, of Oakville, Peter Archdeacon, of Toronto, H. Battell, of Grafton, W. H. Gardiner and J. P. Lake, of Marvin, all in Canada, were among foreign exhibitors in this department.

The exhibition of POULTRY was a very good one. Our correspondent, D. S. Heffron of Utica, had one of the best and most extensive collections, including beautiful speckled Dorkings, Spanish, Game, Sumatra Game, Bantams of different sorts, Bremen Geese, Mallard Ducks, &c., &c. E G. Cook of Jefferson county, was another prominent exhibitor; Charles Brooker and James McMinn of Jefferson county, showed Leghorn fowls; O. Howland and others, fine collections of different varieties.

The FLORAL TENT was put up a second time, and finally arranged and decorated very neatly, by Thursday noon. The show of Flowers and Fruits was good—not large. Ellwanger & Barry of Rochester were were on hand with a beautiful display, including over 150 variety of Pears, 36 of Apples, 12 of Plums, 17 of Foreign Grapes, as their contribution in the orchard line, and 58 varieties of Dahlias, 62 of Roses, and 65 Phloxes, besides other flowers enough to obtain the first prize on the professional list for the greatest variety. Thorp, Smith & Hanchett had also a magnificent display of flowers—among them 90 varieties of the Verbena, 72 of the Dahlia, 40 of the Phlox, 75 of the Rose, together with a beautiful show of Pansies, &c., &c. Rain or shine, one is sure to find Mrs. Van Namee of Pittstown, ever ready to aid in ornamenting the tables of Floral Hall, and we are glad to notice that her collection this year received no less than eight prizes. John Wilson's name of this city, occupies a prominent place on the prize list, for Dahlias, Asters, Pansies and Foreign Grapes. Elisha Dorr showed six varieties of Pears, including some especially beautiful Bartletts, 32 of Plums, comprising a fine collection of the best sorts, and several of Grapes. C. M. Hovey & Co., occupied a table with some 200 varieties of Pears. Among other exhibitors were C. B. Burtis of Phelps, with about 100 sorts of Apples, E. S. Hayward of Rochester, Mrs Chatfield of Albany, Mrs. Pierce of Oswego, &c.

Of the exhibitors of GRAIN and SEEDS, Wm. Ottley of Phelps, E S. Hayward of Rochester, O. Howland of Auburn, and J. Chamberlain of Canton, were awarded prizes for wheat of different varieties—Wm. Ottley, also, for Oats, Barley and Clover seed; Mr. Hayward for Sweet Corn and Timothy seed; Mr. Howland for Timothy and Buckwheat. There were 70 packages of BUTTER shown, and the committee had some difficulty in making the awards. The CHEESE Exhibition is characterized by the Judges as the best they had seen—J. M. Campbell of Champion, and N. Fry of Governeur, received first premiums. Tho exhibition of VEGETABLES was numerous, mostly from the vicinity of Watertown.

The show of MACHINERY in motion, we think, was never greater. Much of it was owing to the enterprise of Hoard & Sons, manufacturers of Engines at Watertown, who had a large number constantly at work. We were pleased to see the Portable Engine of A. N. Wood & Co. of Madison county on hand, and busily engaged. We did not discover anything particularly new—with two quite important exceptions, viz: a Reversible plow, patented by A. Barton of Syracuse, in which, by a simple movement of the beam, the point is carried round so as to form a perfect plow to turn the furrow either way as desired, or by setting it in the middle straightforward, as good a double mould board as one could wish. Its simplicity and facility of change are worthy of the highest commendation, and should at once attract the attention of manufacturers and users of this important implement.

The other machine referred to, was no other than a steam tree-chopper! We have been in the habit of thinking a *portable* engine quite an improvement; what will our readers think of one which two men can carry about with them, and which by attaching it, by means of a flexible tube or hose, to a boiler on an ox-cart, can work in a circle of 200 feet feet, without moving the boiler, cutting or rather *sawing* down trees of 15 inches diameter in *one minute's* time, as we actually saw it do on the fair ground. Tho saw is attached immediately to the piston-rod of the cylinder, the valves of which are worked by the most simple possible of all contrivances, but one so far as we know entirely new,—and cylinder and all is carried from tree to tree, first sawing it down, then divesting it of branches and dividing the trunk and branches into any desired lengths. It attracted perhaps more attention than any other one thing shown, and deservedly received the highest award the committee could give. It can but prove itself of great value especially to lumbermen. It is the invention of Mr. Fairbanks, of the firm of Fairbanks, Wilmot & Co., No. 343 Broadway, New-York, who are not yet prepared, as we understand, to offer them for sale—this being merely an experimental effort which has been at work among the woods for a few months on trial. They may anticipate a demand which will keep them busy as soon and as fast as they can supply it.

There was a good assortment of IMPLEMENTS—Horse Powers, Thrashers, Corn and Feed Mills, &c., &c., on the grounds, among the exhibitors of which the well known houses of Wheeler, Melick & Co., Richard H. Pease, and Emery Bros., of this city, were most prominent. Wm. Deering & Co. showed their improved Vertical Hay Press.

Messrs. O'Reilly, Evans & Mann exhibited a new digger, or "Terracultor" as it is styled, designed to take the place of plow and spade in the cultivation of the ground. We witnessed a trial of it on a light loam stubble, where it pulverised the earth thoroughly to the depth of nine inches; but we thought it open to objection for bringing grass, weeds, &c., to the surface, where they were in a good condition to grow again, instead of burying them below the ground. Otherwise it seemed to promise well.

Among the novelties in the machinery hall, were a printing press from the extensive establishment of Charles Van Benthuysen, and a lithographic press shown and operated by the engraving firm of Hoffman, Knickerbocker & Co., of this city. A little Oscillating Engine, one or two shingle machines, a saw mill, &c., &c., also attracted much attention.

We must conclude this already long account of a Fair which will be for many reasons, one of the most memorable in the Society's history—by some brief notes of

THE SALES OF THURSDAY.—Mr. Van Rensselaer's herd, as we have already hinted, went off at a great sacrifice—one that we much regret, and can scarcely understand. Timely notice had been given; it was hoped that purchasers would be attracted by the Fair, as well as the inducements of the stock offered; we thought we might reasonably expect the farmers who were drawn together for other reasons, not to lose sight of so important transactions in their very midst. But it turned out the reverse of all these anticipations; at our "Fairs" the great majority of visitors seem to be too much occupied with other matters, even to give their attention to the address usually delivered rather as a matter of form than anything else, and we have almost concluded that, strange as it may seem, they are the last occasions on which the auctioneer, however good the herd, should seek a liberal and appreciative audience. We give the following results in the present instance:—

COWS AND HEIFERS.

No. 1.	Leonora Purchaser John Corp, Cortland,	70.00
6.	Fancy, do do	100.00
23.	Fashion, do do	27.50
4.	Lonesome, Seneca Daniels, Saratoga,...	56.00
8.	Nancy Dawson, do	77.50
10.	Sylph, do	82.50
12.	Lily 2d, do	42.50
14.	Sprig, dc	32.50
15.	Lassie, do	32.50
2.	Lilly, purchaser M. Bowen, Chenango,...	112.00
11.	Nonsense, do do ...	90.00
3.	Sprightly, do Chester Dike, St. Law'ce,	90.00
13.	Cynthia, do do ...	57.50
17.	Nightingale, do do ...	37 50
5.	Lady Bird, do F. J. Rotch, Otsego, ...	110.00
18.	Fanny do do	35.00
21.	Lucy, purchaser F. J. Rotch, Oswego,...	27.50
7.	Nonpareil. do J. G. Stanton, Catta. Co., .	127.50
9.	Laly Lightfoot, do	107 50
16.	Lady Gay, do O. Howland, Cayuga,....	40.00
19.	Soucy, do E. G. Cook, Jefferson,....	30 00
24.	Nut Cake, do do	82.50
20.	Lady of the Lake, C. S Wainwright, Dutchess, ...	35.00
22.	Lupin, do J. Swan, Saratoga.......	32.50
25.	Laurel, do A. M. Rogers, Jefferson,.	12.00
	Total for 25 head—an average of $61.90 each,...	$1,547.50

BULLS.

Mercury, purchaser A. M Rogers, Jefferson,.......	$20.00
Mammon, do M. Bowen, ...	57.00
Megunticook, do C. D. Bent, Cayuga,...........	105.00
Total—an average of $60 each,....................	$182.00

Mr. Clarke's oxen, already referred to, were sold at the same time with the following results. They were all of them four years old.

No. 1.	John Williamson, Tioga,.................	$237.50
2	Jas. L. White, Otsego,............. ...	225.00
3.	J. M. Bostwick, Munroe, ...	225.00
4.	do do	210.00
5.	Mr. Hart, Westchester, ...	200.00
6.	Z Springer, Otsego, ...	200 00
	Total—an average for each yoke of $216.25,....	$1,297.50

His imported bull 'Charles II," was sold to H. Bowen, Orleans, for $200. Other sales were those of Lynch's Short-horn bull 'Senator' to Henry Humphrey, Lewis, for $95—L. R. Lyon's 'Governor 3d,' the second prize Ayrshire bull to O. Howland, for $37 50—and Merriam & Coe's Devon bull 'Minister,' to W. H. Fisher, St. Lawrence, for $99.

We also heard of the following private sales: of A. & H. Bowen, of Oak Grove, near Medina, the yearling bull 'Catalpa' and heifer 'Lilac,' Herefords, to John Merriman of Hayfield, near Cockeysville, Md.—of Hungerford & Brodie, the cow 'Empress Josephine' for $1,000, the heifer 'Flourish,' two years old, for $400, and a ten weeks' old calf of 'Lady Newham's' for $200, Short-horns, all to E. Marks of Camillus—also a number of Leicester ewe lambs, and two Yorkshire boars to go to Cincinnati—also an Ayrshire cow and heifer to A. M. Tredwell of New-Jersey, for $350—also 'Kilburn 2d' to E. M. Shepherd, St. Lawrence, for $200—of E P. Prentice, of this city, a yearling Ayrshire bull to go to Canada, for $125.

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Underdraining with Stone.

MESSRS. EDS.—Having been an attentive reader of the Country Gentleman from No. 1, Vol. I, until now, I have found the subject of underdraining land written upon from time to time, which has led me to believe this the best method of improving the value of land so situated as to be subject to such treatment. Accordingly, this fall I have begun to drain part of my barn meadow. It contains eight acres—wet land—lies sufficiently descending to give a fall of six or eight feet. The surface soil is from one foot to eighteen inches in depth, black loam, then a sort of clayey hardpan. We make the ditch two feet wide at the top, and slant down to six inches at the bottom. We dig it three and one half feet in depth and fill in small stone to the depth of one foot and a half. The smallest stones are the best; and I have plenty at hand not fit to lay in wall, which ought to be cleared out of the way. Then put on inverted turf over the stone; then fill in the soil dug from the ditch. This is the plan of a foreigner who works for me. He says he has seen it tried in Ireland with complete success. Now, if yourselves or correspondents know anything about this way of underdraining, I should be glad to hear about it. LUCIUS GRISWOLD. *Milton, Litchfield Co., Ct.*

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TO DARKEN MAHOGANY.—Drop a nodule of lime in a basin of water, and wash the mahogany with it.

Manufacture of Manure.

Messrs. Editors—Can you inform the readers of The Cultivator, the best and most expeditious mode of converting dry straw into manure—also the best work on the subject of manures? There is any quantity of straw burned every year in this part of the country, which if made into manure would be of great benefit. Can you give any information concerning Bommer's patent method of making manure? If you can do so it will oblige at least one of the readers of the Cultivator. W. Slater. *Sauk Co., Wisconsin.*

Straw serves a useful part in the manufacture of manure, by the supply of vegetable matter which it furnishes, when decomposed into mould. But its chief value is as an absorbent, in preserving the liquid or volatile portions of common yard manure, the whole, when well incorporated together, constituting our best fertilizers. In ordinary farm management, a great deal of straw may be easily and profitably converted into manure, by being used daily through winter, in copious supplies for littering animals, and by spreading a layer frequently over the barn-yard, to be trodden successively under foot by domestic animals. If a straw cutter, driven by horse power, is used on the place, all the straw used for different purposes should be passed rapidly through it, regulating it, if the straw is intended only for litter, so as to cut two or three inches long; this will obviate the common inconvenience of *long* or *fibrous* manure, which is so hard to spread, and the value of much of which is lost from the difficulty of mixing it well with the soil. When the straw cannot be cut, the manure heap must be allowed to rot longer; and to prevent the waste by fermentation, it should be mixed with turf from old pastures, earth from ditches, muck, peat, or other absorbents. This may be done either in the barn-yard, or at the border of the field where the manure is to be applied. The latter is most economical of labor, if the turf or other material exists there, as it saves the conveying of this to the yard, and then back to the field. The manure and turf should be placed in alternate layers of a few inches in thickness, until a large heap is made; and when well decayed it may be mixed by means of a yoke of oxen, with a plow and harrow—the heap being made low and long for this purpose. A large quantity of excellent compost is thus formed, and its value will be increased if ashes, lime, soap suds, salt, plaster, &c., are occasionally added, the proportions of which should not exceed about one twelfth of ashes, one twentieth lime, one twentieth of plaster, and one fiftieth of salt. If any animals are kept up during summer, their fresh manure should be frequently drawn out and added to the heap, being preserved from evaporation by immediately covering with turf, peat or earth. The carcasses of any dead animals which may be procured, will add greatly to the value of this heap of compost, if buried well beneath it for some months.

Bommer's method of making manure, (which has now been in use some fifteen or twenty years,) is not any thing new or original in itself, but is valuable on account of being a definite and systematic combination of the essentials for success, in producing the fermentation of heaps of vegetable substances, and their conversion into manure, founded on many experiments as well as theory. Some of his rules are however quite arbitrary, and not essential to success. His method is substantially as follows:

The leading point is to produce fermentation in a heap of vegetable matter, by pouring on a liquid that shall in a few days effect this purpose.

A piece of sloping ground is first smoothed and beaten hard, with a channel around it to collect the escaping liquid, and carry it into a tub or vat sunk into the ground for this purpose. The heap is made of straw, cut being preferred, chopped stalks of weeds, &c. Before forming the heap, however, 18 or 20 barrels of liquid manure is to be prepared, for watering the heap, by mixing together the following ingredients in tubs, vats, or sunk barrels:—Feculent substances, urine, &c., 200 lbs; soot, 50 lbs.; ground plaster, 200 lbs.; quicklime, 50 lbs.; ashes, 20 lbs.; salt, 2 lbs.; saltpetre, 1 lb.; and other liquid, previously prepared, 60 lbs.* These are mixed and dissolved with 18 or 20 barrels of water—the foulest stagnant water that can be had—and the whole should stand some days before using. The heap is then commenced by a layer of straw, weeds, &c., half a foot thick; and the whole is then watered by the liquid poured over with a pail; stirring it up well each time—then another layer of straw, to be again watered, till the materials are all used—say in a heap 6 to 10 feet high. Cover the top with the mud from the bottom of the reservoir, and then with all the liquid remaining. It is very important to use plenty of the liquid, or the fermentation will not take place, and the heap will be dry, fibrous, and mouldy. The liquid which drains off, is to be applied a few days afterwards in a second watering—and then again in a third. If the heat is too great—so as to dry up the manure, check it by copious watering. A fortnight will usually make good manure.

Farmers in the west who have large piles of straw, —more than they can convert to manure by a copious use as litter through winter,—may convert it to manure by a process somewhat similar, although it may cost more labor than most of them will be willing to apply. But they must distinctly understand that the *straw itself* is but a small portion of the value of manure;—hence, when a heap of straw is simply rotted down, by building it into a stack, and thoroughly watering it with commen ditch or brook water, in successive layers, it only forms a mild fertilizer like vegetable mould. It needs the addition of the *animal*, the *nitrogenous* materials, to convert it into strong manure; and for ordinary practice, we think this is most easily effected by the copious use of straw as litter, and by daily applying a thin coating of it to the bard-yard. An almost incredible amount of straw may be thus used up,—and its use in this way will also contribute to the comfort and cleanliness of the animals. The reduction of the fibres of such manure may be effected as we have already described in the early part of this article.

One of the best works on manures is "Browne's Field Book of Manures," published by Saxton & Co., of New-York, at $1.25, and sent by mail for that sum.

Preparation for Washing Clothes.

Messrs. Editors—In the Cultivator for July, page 215, you desire information in respect to the successful use of some chemical process to lessen the labor of washing. The following receipt has been well tested in my family for the last five years, and is attended with no drawbacks. It fully saves one half the labor.

Recipe.—Take half a pound of unslaked lime—one pound soda—two quarts of soft soap—slake the lime with two quarts of boiling water, and let it stand until settled. Dissovlve the soda with two quarts of boiling water. Pour off the lime water, being careful not to let any lime go in. Mix the lime water with the soda and soap, and then stir together. Apply this preparation to the clothes, the same as soft soap, and boil them. They will need but little rubbing.

This receipt was obtained from a lady in Pennsylvania, and is the best we have ever used. Milner Case. *Avon, Ct.*

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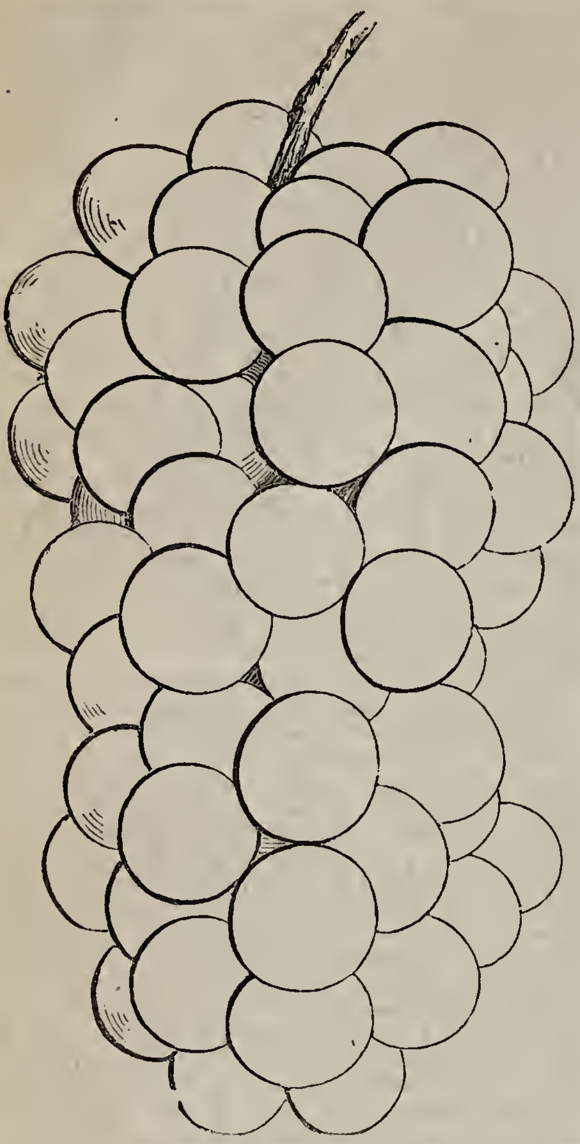
* The amount of some of these ingredients is quite arbitrary, but well enough.



The Rebecca Grape.

Messrs. Editors—I forward you to-day by Express, a box containing three bunches of a new seedling grape, the "Rebecca." This vine is an accidental seedling, which originated in the garden of Mr. E. M. Peak, Hudson, N. Y.—whether from the seed of a native or foreign grape is not known, although its aroma and other characteristics indicate it to be of native origin. It is perfectly hardy, enduring our severest winters in any exposure without injury. The original vine has fruited for the last five years. One three years' old, from a layer, had upon it a hundred good-sized clusters of fruit. It is a good bearer and thrifty grower, extending its shoots from fifteen to twenty feet in one season with good cultivation. The fruit ripens a week or ten days earlier than the Isabella. Wm. Brooksbank. *Hudson, Oct. 4th*, 1856.

The grapes came in fine condition, and we have made an exact drawing from one of the bunches, with the exception, perhaps, that the berries are represented a very little smaller than *some* of the specimens. This grape was exhibited at the late meeting of the American Pomological Society at Rochester, and excited much attention and interest on account of its excellence. Our readers will perceive from our Report of the proceedings of that Society, that it has been found perfectly hardy at Newburgh, according to Dr. Grant and Charles Downing.

This grape has all the delicacy, sweetness, and freedom from pulp, which characterizes the best exotics, although the flavor is not so high as that of some of the best. Its vigor and hardiness being fully established, the only drawback on its high value, is the possibility that after it has borne a few years it may become affected by mildew. The following is a description:

Bunches about five inches long and two to two and a half broad, compact or closely set. Berries roundish oval, light dull green, becoming yellowish green, with a slight brownish tinge in the sun; skin thin. Flesh sweet, juicy, with a very agreeable flavor—fully equal to the Early White Malvasia, and sweeter, and would come under the class of "very good."

The U. S. Ag. Society's Meeting at Philadelphia.

The exhibition of the United States Agricultural Society at Philadelphia, last week, was very successful. The attendance was unprecedentedly large, the cash receipts aggregating, so far as could be ascertained before the count at the close, about thirty-five thousand dollars. The weather was remarkably favorable throughout; the grounds and means of access to them convenient; the "trials of speed" exciting, and much, very much, in the long ranges of stalls behind the course—in the pens beyond,—and in the tents containing implements, and that devoted to Horticultural products, to attract the attention of the more sober and practically inclined portion of the vast crowds that thronged every portion of the field Thursday was the great day, so far as the turn-out of visitors was concerned, the number on the grounds on that afternoon, being a sight in itself worthy of study, and according to calculations based on actual ticket sales, at one time approaching sixty thousand. In both the numerous attendance and in the character of the display, it was spoken of from mouth to mouth, as the "greatest agricultural show the world ever saw;" but, although in respect to the former particular, this statement is not unlikely, we are inclined to consider it an exaggeration when applied to the latter. Before going on to speak of it in detail, we may acknowledge our indebtedness to President Wilder and other officers, and to many of the exhibitors for their polite attentions. We were very much pleased to meet numerous friends and noted agriculturists on the grounds, from all portions of the country, among whom were Simon Brown of the *N. E. Farmer*, George Vail, Lewis G. Morris, President Faxton, and Jonathan Thorne of this state, Thomas Brown of the *Ohio Farmer*, Mr. Clark owner of the celebrated bull 'New-Year's Day,' of Ohio, James B. Clay of Kentucky, Col. Summer of South Carolina, Simpson Thompson of California, Drs. Brinckle and Elwyn, of Philadelphia, and many others of our largest farmers and breeders, whose names will appear below in connection with notices of the animals or articles they exhibited.

In respect to Cattle, the show was not quite so large and general as we looked for, but a remarkably good one in many respects. The *Devons* were entitled to the palm, so far as the numbers and variety in which they were exhibited, as well as the unsurpassed excellence of many of them, are concerned. The *Short-horns* were not so fully represented, but, while the stalls of only two or three exhibitors included all the stock of this breed extraordinarily good, the standard of excellence among them was undeniably as high as it has ever been, or probably will be in this country. Devons are a breed peculiar to the northern and eastern states, and there were representatives of nearly all the localities in which peculiar enterprise has been displayed in their breeding or importation. Durhams, on the other hand, are favorites in Ohio, in Kentucky, in Illinois, as well as in New-York and Pennsylvania, and a show in which the former of these states are not included, is scarcely a fair reflex of the quality and numbers of the Short-horns throughout the United States;

and while we cannot, in view of the distance which separates them, blame breeders so far away for not contributing among others nearer home, the lack of their stock can but be considered as very much marring the completeness of the show in the particular under consideration. We have never seen so good a turn-out of *Herefords*, although mainly, if not wholly from this state. *Alderneys* were very favorably, *Ayrshires* not more than fairly represented.

We do not know how the number of entries of Horses compares with that at Boston last year, but the show was generally a fine one. We understood that it was especially good in matched horses. The turn out of colts and stallions was also excellent. That of blooded horses has never been surpassed. The competition was large and close in the ring of four year old stallions. This was also the case among draft horses. There were not so many or so rapid trotters as last year, and there was no remarkable speed shown, unless we may except those classes to which the Society admits horses which have before trotted for money. So long as the premiums are offered and the trials instituted for the benefit of farmers, however, and not for the encouragement of "sporting men" and the promotion of gambling, this department of the exhibition cannot be too rigidly guarded or too carefully conducted; and in those classes in which it is the purpose of the prizes to encourage more intelligent and thoughtful breeding among farmers at large, by excluding from them such animals as have been trained in the laborious and expensive education of the course, the closest scrutiny must be exercised to prevent the intrusion of mere jockeys, who do not fail to use every endeavor to compete, with perfect recklessness. We were informed by one of the most esteemed and prominent judges in one of these classes, that his companions and himself had experienced the utmost difficulty in performing their otherwise sufficiently arduous duties, in order to carry out faithfully this very proper and necessary distinction,—and a distinction which forms one of the chief redeeming features in a department open on many other accounts to serious objections. We may be permitted to add that we had rather see smaller crowds at an exhibition, and a less formidable deposit at the Society's bank, with the satisfaction of being assured that all who came, came for a wise and honest purpose, and went away wiser and no worse than when they came.

The show of Sheep was a fine one, embracing a good variety and specimens of great merit in several breeds. That of Swine was very good. There was quite an exhibition of Poultry. Fruits and Vegetables were present in fair quality and numbers. There were four very extensive collections of Implements, embracing altogether probably a greater show than ever was seen before on a single field. Quite a variety of Native Wines, including samples from Ohio, Missouri and California, were submitted to the committee in this department.

The above will answer as a glance at the general character of the Fourth Annual Exhibition of the U. S. Ag. Society. A full account with many details in regard to the stock and articles shown and the prizes awarded, has appeared in the Country Gentleman, but the pressure on our columns this month is too great to admit of its publication here.

Cure for Foot Evil.

J. K., of Gosport Indiana, inquires for a remedy for foot evil in cows. I would recommend him to the "American Reformed Cattle Doctor," by G. H. Dadd, Boston—price $1.00, which enclose to the editor, and he will receive by mail, and which will teach him that foul in the foot or foot evil, is caused by some derangement in the system, and when the cause is removed the evil will much more easily be got rid of than by the use of the hot iron or scalding tar, and far more humanely. C. D. Bent. *Sterling, N. Y.*

Destructive Apple Insect.

I am a young farmer, and have but just fairly commenced in the world. I have a young orchard planted, of apple, pear and plum, from which I anticipated ample returns for my money and labor. But my hopes are nearly blasted, for the grubs, as I call them, have taken possession of my apple trees, and have killed several and injured many more. They get in near the ground, and around the knots where the branches were taken off to form the body of the tree. They mostly work between the bark and wood, girdle the tree, and a part of them work into the wood. They appear to hatch from nits laid in the bark. The first I discover is a small speck of gum-like substance on the bark, and under this a small dead spot containing one or more of the "varmints," of various sizes, and as they grow they work their way through. I find the most in the Roxbury Russet. They have killed about half of them, and injured most of the others. I send you a sample of them. They are a white grub about an inch long, and taper from the head. The teeth are black. Will you be so kind as to inform me (and many others) of their habits, and of a way to destroy them before they spoil the trees, and oblige a young farmer. Also your opinion of saw-dust as mulching for trees. I live near a saw-mill, and can get any quantity for that or any other purpose. O. N. Cadwell. *Talmage, Ottawa Co., Michigan.*

We have never met with this insect, but are informed that it is common in many parts of the western states. It appears to be the larva of one of the many species of the *Elater* or snapping beetle—insects mostly living and boring in wood. The specimens sent not being protected by being enclosed in a box, did not arrive in a condition for examination. The best immediate remedy is to destroy the insects wherever they can be found; and the best preventive so far as we know, is to keep the trees in a good healthy condition, by good clean cultivation, and to keep the surface smooth and free from crevices where the insects can obtain a lodgment by careful pruning. Unseasonable pruning sometimes produces a deranged state of the sap, followed by disease, and the insects are apt to make their attacks where the bark is injured or diseased. We should be glad to receive any valuable practical information in relation to this insect, from any of our correspondents.

Saw-dust, by keeping the ground moist and free from weeds, forms a good mulch, but not better probably than the same amount of pulverized earth, made by keeping the surface clean and mellow.

The Vinegar Plant.

In the Nos. of the Co. Gentleman for some time past, I have read much about the Vinegar Plant. I will give you a short history of it in this section. It was first introduced here about seven or eight years ago, but from where I cannot tell. It has now given way to cider vinegar, which is considered best for the following reasons:—1. Because it will not keep as well as cider vinegar; 2. Because it is more trouble to make it; and 3. It is not considered equal in flavor.

In regard to its management your correspondents have already spoken fully enough on most points. I would only say, that it makes no difference about the size of the plant, whether a whole one be taken, or only a part, as to its vitality, the difference being, the larger the piece the quicker the vinegar will be ready for use; I have known a piece no larger than a three cent bit, carried in a phial of sweetened water hundreds of miles, and then after some two or three weeks, to be taken out and properly cared for, to do well. I have always considered it a fungus plant. It is entirely different from the substance called "mother," in vinegar; the former losing its vitality by being left in sharp vinegar, and the latter only increasing as the vinegar grows stronger. Syo. *Nassau, Rens. Co.*

Farming on Light Soil, Lime, &c.

Messrs. Eds.—Your uniform kindness in answering letters of inquiry pressed upon you, is a feature in your Journal, which besides being duly appreciated ought to draw from your readers a corresponding reciprocity. Hence I propose giving you a brief sketch of some New Jersey farming, that has come directly under my own observation. Over against my nursery grounds, is a live Yankee farmer, (and what I mean by a live Yankee farmer is one that is alive to *good works* in the way of farming,) who farms less than 100 acres of rather light, sandy loam. And of course, as it is dry, so is it what is called early soil, and very different from my soil, which is decidedly clay loam. I have never known a failure of very good crops on this neighbor's farm under his management; and it seems to be getting better all the time, or at least loses nothing in quality by cropping. There are side by side, two lots to which I now refer in particular. Every other season he takes off a crop of corn and wheat, as regular as the sun shines; and the way it is done is this:

He plants on a clover sod in the spring *as early as possible*, corn, which as soon as it ripens, is cut and *taken off the ground.* Then the manure on hand is carted on, spread, and the plow started for wheat, which is sown as soon as the ground is ready. In this latitude this is about 1st of Oct. Some timothy seed is also sown with the wheat. Early in spring clover is sown on the young wheat. In due time an excellent crop of wheat is realized; then there is the clover and timothy coming on, which if not fed off, *as it should never be*, forms by the next spring quite a sod for corn. With the application of any manure on hand this sod is now turned over for corn, and such amazing crops of corn it is good to behold. This completes the rotation, as we are where we started from.

This is what I call successful farming, and I think would be quite perfect with the addition of lime. I have seen such magnificent improvements on the gay face of Nature by the use of lime, that it is hard to conceive how such uniformly good crops can be realized without it. I have never seen, to my knowledge, any used on this place. Standing on some elevated points in Mendham township, of this (Morris) co., you overlook the Peapact Valley, now said to be a garden, compared to what it was twenty years ago. It is the lime quarry of Morris co. Take a similar stand on the next range of hills, known as "Schooley's mountain"—(rendered famous in history as the depository of the jewels and treasures of the "Morristown ghost," whose wealth when disgorged was to flow like a river into the lap of its recipients)—and you may overlook on either side the German Valley and the Musconotcong Valley,—both splendid grain growing regions, and made so by the free use of lime. Other examples of the same kind might be adduced. Day. *Morristown N. J.*

Important, if True.

To *secure from cattle, male or female progeny at will.*—According to an article in the Annals of the Luxemburg Ag. Society, communicated by a Belgian farmer, a heifer calf is invariably produced when the cow is put to bull before milking, and a male calf when the cow is put to bull just after she has been thoroughly milked. The author of this statement claims to have confirmed its accuracy by four years experience, and asserts that the plan has succeeded beyond all expectation. Cows, which previously had borne only male calves, and that for four or five years, gave heifer calves by the above treatment. Give it a trial. Bakewell.

How to Fatten Sheep.

The first thing requisite is to procure an improved breed of sheep, such as will come to early maturity and fatten any time during their growth. I have for the last ten years been breeding the Cotswolds. I have now three two year old wethers weighing over two hundred lbs. each, and a yearling buck nearly as heavy as either. This buck came in competition with the two year old buck which took the first premium at the U. S. Fair last year in Boston, and took the first prize at our Litchfield Fair last week.

The great difficulty with this breed of sheep on farms well adapted to sheep husbandry, is to prevent their getting so fat as not to breed. To prevent this it is necessary to put them in the poorest feed the farm affords after the lambs are taken from them.

Sheep, like all other animals, will do better to be protected from cold winds, or from storms, especially in winter.

I have commenced feeding my three wethers on oats, with the intention of fatting them. From what experience I have had, there is little danger of cloying on this kind of grain. In feeding corn more care is required. The quantity which may safely be fed to each sheep, must vary according to the size of the animal; from half a pint to a pint twice a day until cold weather, when it may be gradually increased.

I am of the opinion that all kinds of grain are the better for being ground when fed in large quantities to sheep, as it saves mastication and assists in digestion, but the cob will hardly pay for grinding for sheep.

When rouen feed fails, turnips or some other roots should be substituted, and may safely be fed in any quantity the sheep will eat.

Without roots, sheep that have been full fed on corn or oats, in connection with rouen feed, will advance but little when put to hay.

Let me admonish "A Young Farmer" if he is breeding sheep for market purposes, not to be long in procuring a first rate Cotswold buck to cross with his ewes. T. L. Hart. *West Cornwall, Ct.*

Cure for Flesh Wounds in Horses.

I have never found anything better for wounds on horses than human urine; keep it in a vessel until it grows stale, then with a swab tied to the end of a stick I wash the cut frequently; it has a tendency to cleanse and at the same time to heal the wound. I sometimes boil it up with Squaw or Blacksnake root, which makes it better. I find it excellent for galled shoulders or back, healing them up in a short time. I have seen the scratches or grease cured in a short time by washing the feet with urine in which a little salt had been thrown; the horse should have a dose of physic at the same time, to purify the blood. I esteem this remedy equal to any of the celebrated linaments of the day. J. W. L.

Successful Management of Bees.

Messrs. Tucker & Son—I wrote to you not long since, in regard to my success in keeping bees. As I have been more than usually successful this season, I should be glad to know if any of the readers of your papers have done as well or better. I commenced the season with 33 old swarms. They begun to swarm about the first of June, and gave me 30 new swarms, several of which were doubled, being small swarms. I have taken 2,500 lbs. of box honey, of unequalled quality, from the 63 hives. I took nine boxes from a single hive—four from a new swarm. I shall have about 500 pounds of honey from hives which I have begun to take up, which will make a total of 3,000 lbs. for a single season. I use no hives which have less than four boxes. They are the Colton hive and one of my own invention. I shall winter between 40 and 50 swarms. I calculate my profits at $400. Lucius Bishop. *New Russia, Essex Co., N. Y., Sept.* 14.

Notes for the Month.

The Ohio State Fair —A letter will be found in another column from an excellent judge of stock, briefly reviewing the very successful exhibition of our westerly neighbors week before last. We see it stated that the receipts amounted to $17,000—an extraordinary sum, but, if correct, only showing what can be effected by a little general and united effort, together with an accessible location. Tho weather was by no means in its favor. The number of entries was quite large--there being of cattlo for tho Short-horn sweepstakes 109—total of Short-horns 121, of Herefords 4, of Ayrshires 4, of Devons 52, of Oxen and Steers 17, of Fat Cattle 20, of stock cattle and milch cows 10. Total entries of Horses upwards of 400, of jacks and mules 22, of sheep 129, and of swine 58.

The Provincial Exhibition opened at Three Rivers Sept. 17th, appears to not have quite equalled the expectations of visitors in its extent, although the numbers of entries was pretty large—about 2,000 as nearly as could be ascertained—and the quality of some of the stock perhaps as good as could have been anticipated in so new a country. The *Farmer's Journal* states that there were not many of the "pedigree breeds" of cattle shown. Ayrshires "were well and numerously represented." The show of Horses included "many fine animals, though very few, if any, of what is known as the pure Canadian breed." The sheep were not thought a fair specimen for Lower Canada; swine were quite superior; dairy, field and garden productions very creditable, and implements "more numerous and of better quality than at any former exhibition." We have a good many readers scattered through the province, and hope that they will all lend a helping hand to multiply still more the evidences of its Agricultural progress which the next exhibition shall afford.

The Cayuga County Fair—occurred on the 18th and 19th. The exhibition was moderate in most departments, the turn-out of people very large, at least some ten or twelve thousand. We observed some fine cattle—Durhams from the south part of the county, from Thomas Goold's and Col. Sherwood's herds—and excellent Devons from the north part, the exhibitors names we did not learn. The working oxen were numerous and fine. The show of vegetables was large and exoellent—that of fruits very small. A valuable collection of agricultural implements was displayed; among them several mowers and reapers—harrows and cultivators,—some newly constructed double mouldboard plows, and excellent farm wagons, light and strong, with *bent felloes*. A ladies' riding match took place, and some of the competitors made time at the rate of twenty miles an hour without saddles. The last day of the fair was a large exhibition of horses, including a trial of their speed, and many fine animals were on the grounds.

County Fairs.—The Onondaga Fair was held at Syracuse, Sept. 10–12, and was, we infer from the published accounts, very successful. The receipts amounted to over $2,300 for which the Society was largely indebted to the Ladies' Riding Match on the last day, at which nine ladies competed for the prizes, very much to the gratification of the assembled multitude. Four prizes of $20, $15, $10 and $5, were awarded. We notice that Mr. Marks of Camillus, received thirteen premiums on his herd of Short-horn cattle.

Premium Cheese.—We have received from Secretary Johnson, a liberal slice of the cheese which received the first premium at the State Fair at Watertown. It was made by Nelson Fry of Gouveneur, St. Lawrence Co., and is worthy of the prizo which it received.

Importation.—The editor of the *Boston Cultivator* mentions having seen at Burlington, Vt., a recent importation of animals by Thos. Betts & Co., of Liverpool and New-York—including 'Scrivington,' which took the first premium on "Coaching Stallions," at the late show of the English R. A. Society, and may be regarded as an excellent specimen of the English coach-horse—a yearling South-Down ram, No. 256, purchased of Jonas Webb for $500—six ewes of the same breed, for which Lord Walsingham received the first premium at tho late show of R. A. Society, and which were purchased for 20 guineas each, and two fine Short-horn heifers, purchased of Jonas Webb, all designed for R. H. Dulany, Esq., of Loudon county, Va. Mr. Betts had also some Shropshire Down sheep, for Mr. Meek, of New-York—a "larger-framed and more rugged-looking animal than the South-Down, but said to make good mutton, and to be a profitable variety"—and on his own account, five South-Down rams and twelve ewes, which he bought of Jonas Webb, and on which he received several prizes at the Vermont Fair then holding—also one pair of Hindoo, or Brahmin cattle, for Richard Peters, Esq., of Atlanta, Ga.

"Cat Mountain Wheat."—We have received from the Patent Office, several packages of "Cat Mountain Wheat," which are at the service of any of our friends. It is a very handsome sample of white wheat.

Messrs. Ellwanger & Barry, of the Mt. Hope Nurseries, Rochester, N. Y., will accept our thanks for a box of fine Virgalieu Pears, just in order for eating, and such as only their careful culture could produce.

Superior Grapes.—Our thanks are tendered to Dr. Underhill of Croton Point Vineyard, for a basket of Isabella and Catawba Grapes. They were the largest and best ripened of any we have seen this season. If any of our friends wish to test our recommendation, let them order a basket of these grapes from 293 Broadway, New-York, where the Doctor keeps his depository.

Fine Specimens of Fruit.—One of the best cultivators of fruit with whom we are acquainted, is Austin Pinney, of Clarkson, Monroe Co., N. Y. His small, but splendid collection, at the fruit room of the American Pomological Society at Rochester, was worthy of a special visit. The thirty-five varieties of fino peaches were a rarity for this scant season. The largo Virgalieu or Doyenné pears, double the usual size of fine specimens, and handsomely reddened in the sun, were declared by an eminent Boston pomologist who saw them, to be alone worthy of a journey from Massachusetts to see. Bartletts were uncommonly large, and with a brilliant red cheek—an ornament which friend Pinney finds they are sure to get if picked a week or two before maturity and ripened in *complete darkness*—while if left in the light, and especially, if exposed to the sun, they are scarcely tinged or not colored at all.

It is hardly necessary to remark that the orchard in which this fruit was raised, receives constant attention and tho very best cultivation.

Cahoon's Seedling Rhubarb.—We cheerfully call attention to the advertisement of Mr. Cahoon in this paper. In acknowledging the receipt of specimens of the stalks of this plant some time since, we only spoke of their enormous size. We afterwards tested their quality, as did several of our friends, who agreed with us that it was decidedly superior to any we had ever beforo eaten.

For Michigan.—Mr. W. F. Sands of Jonesville, Mich., passed through this city last week, with a fino three-year-old Short-horn bull, "Romeo," procured from John Bard, Esq. of Dutchess county. We are glad to see that so many of our Michigan friends are aiding in tho improvement of the stock of that State.

Milkweed, or Silkweed.—I herewith enclose you a specimen of a plant that grows here in great abundance, and will feel obliged if you will, through your useful paper, tell me the name of it; also if it is of any marketable value, as it appears to be much finer than cotton, and if of any use can be grown to any extent; your attention will oblige a subscriber. *Freeport, Ill., Sept.* 24. [The plant sent is common in various parts of the Union, and is known as the *milkweed*, and sometimes as *silkweed*, from the glossy fineness of the plumes attached to the seeds. It is the *Asclepias Syriaca* of botanists. It is sometimes used for filling beds. We have heard of its being attempted to be used as a substitute for cotton in forming thread, but the attempts so far as we know, have not proved successful—perhaps from a want of skill—will our correspondent give it another trial.]

Trees Gnawed by Mice.—In your paper, I see several articles about protecting apple trees from mice, &c. The best remedy I know is to paint them with coal tar. J. W. [We have published several different preventives lately, for this purpose, all of which have their advantages in different circumstances—but we have never found any thing yet that is cheaper and more effectual than the long tested mode of banking up the stems with earth, about a foot high. One man will do hundreds in a day, and if grass or weeds are not thrown up with the earth, the mice will never approach the trees.]

Messrs. Tucker & Son—I take pleasure in enclosing you a sample of "Chinese Wheat" or "Egyptian Corn," which was sent me from the Patent Office in the spring of 1855, with some thirty odd kinds of flower seeds, labeled "Chinese Wheat." From the product of less than half a thimble full, I raised this summer about a bushel, and think an acre of rich land will produce from 30 to 40 bushels, or perhaps more of it. I'll take much pleasure in supplying you or any of your friends who may wish to give it a trial. It resembles millet, and some of the heads are a foot long. Our visitors have carried it to all parts of the country. This is something new to us, but it may bo an old acquaintance of yours. E. C. Jordan. *Jordan's Springs, Va., Sept.* 29, 1856. [Judging from the appearance of tho seed enclosed with the above, we should pronounce it millet, and nothing but millet.]

Water Pipes.—Seeing an inquiry in the Cultivator, from C. S. Wittmer, for a cheap water pipe, I thought it might be interesting to your numerous readers to give you some account of what I believe to be an excellent pipe for conducting water. It is a species of stone-ware, called "Terra Cotta," manufactured by Link and Black, Seventh-street, above the Germantown road, Philadelphia. It is made in pieces of three feet in length. The substance is hard as flint, glazed inside and out, and from appearance dampness could have no effect upon it. The pieces are put together with Roman cement; the pipe I saw was upon the farm of Joseph Armitago, of Bucks co., Pa.; it was two inches in diameter inside, and cost 37½ cts. per piece, or 12½ per foot in Philadelphia. It will bear a great pressure. This pipe must keep the water very pure. I think it preferable to any pipe I have ever seen for conducting water for drinking or cooking. They manufacture different sizes, from two inches up to fourteen inches I believe. John W. Lequear. *Kingwood, Hunterdon co., N. J.*

Cotswold Sheep.—I wish to say a word of recommendation in your paper respecting the Cotswold sheep owned by T. L. Hart, Esq., of West Cornwall, Litchfield Co., Conn. They are of puro blood, and for beauty of form, are not surpassed if equalled by any in the stato. Among this flock are three wethers a year old last spring, which now weigh 175 lbs each. He also has a very superior buck which I never saw equalled. The Cotswold blood is fast taking the preference in our mountain county. Levi Cook. *Colebrook, Ct.*

"Cassabar Muskmelon."—We have received some of tho seeds of this melon from J. L. Ashby, Esq., of Plattsburgh, Missouri. Mr. A. says—"It is a delightful fruit; in appearance something like a Pomegranate, though much larger and more beautiful in its leopard-liko spots, while its rarity will commend it to the amateur gardener." [See advertisement.]

Large Ear of Corn.—Mr. Samuel Hamilton, of this city, has laid on our desk an ear of "Ohio White Corn" measuring 12 inches in length, 7 in circumference at the larger end and 6 near the tip, and containing on actual count as he informs us, 760 grains. It was grown on the farm of Hon. S. E. Johnson, near Brooklyn, L. I., and we are assured is merely a sample of tho best of the ordinary yield, and not a single instance of extraordinary excellence.

Fall Plowing.—When the object aimed at in autumn plowing, is to render a clay soil more friable, and when there is no sod or sward to be rotted, it may be carried on as long as the ground is free from frost. The less the land is exposed to drying winds, rains, &c., after plowing, the greater will be the effect of the winter's frosts in making it mellow. To obtain the utmost benefit the land should be thrown up in narrow ridges, or in such a way as to allow of its greatest exposure to the air, and its ready crumbling.

A Horse with the Heaves.—A very spirited and excellent article on "How I Bought a Horse that had the Heaves, and how I Treated that Disease," was contributed by our friend and correspondent, Henry F. French, Esq., to the Co. Gent. in 1853, and quoted therefrom in the Register for 1855. Extracts from it have ever since been "going the rounds," and we have of late observed particularly the frequency with which they occur in our exchanges, and with the queerest kinds of *credit* attached—the last we have noticed being to the *Family Journal* and *Indiana Farmer*. It is worth starting again with the proper acknowledgment.

Editorial Agriculture.—We are pleased to notice that our friend A. P. Cummings, Esq., well known as one of the editors and proprietors of the *N. Y. Observer*, and who has long conducted an excellent agricultural department in that paper, recently obtained at the Westchester county show, the first premium for the best pair of working oxen, the first for the best Durham bull, the first for the best Suffolk boar, the first for the best mare and colt, the first for the best pair of turkeys, and the best pair of hybrid ducks and the best pair of black ducks. Mr. Cummings resides in Mamaroneck, where he cultivates a large farm, well stocked with the best breeds, though attending daily to his business in the city.

Kensington, Ct., Sept. 22.—Our corn crop appears fine. Potatoes I think, though not well posted in them, promise fair. Apples are quite scarce in this region. Grapes are early ripe and generally fine, both wild and cultivated. The Diana with me is early and very excellent, but just beginning to bear. Will you notice in the "Gentleman," the results of the new varieties of grapes this season. s. m. [We shall be glad to receive the opinions of any of our readers who have fairly tested any of the recently introduced varieties of grapes.]

High Price for Peaches.—The California Farmer states that while visiting the fruit stand of Mr. Swift in San Francisco, one morning, it "noticed tho following sales of Smith's Peaches: 67 pounds at $1 per pound, 62 pounds at $1, 77 pounds at 87½, 66 pounds at 87½, 35 pounds at 75, and other parcels, so that 25 or 30 baskets would be a little fortune."

Mr. Sainsbury's Short-horn Sale.—Our last foreign advices contain accounts of this sale of Short-horns, which was conducted by Mr. Strafford at the owner's residence at the Priory, Corsham Wilts, and attended by a numerous company including the representatives of bidders in America, Australia, Prussia, &c. Among the bulls offered were the 4th Duke of Oxford and 2d Duke of Cambridge, both of them sons of Mr. Thorne's renowned Grand Duke. The former brought about $1150, and the latter $600—prices unexpectedly moderate. Mr. Thorne himself was a purchaser—bidding off the heifer Darlington 6th, calved March 4, 1853, for 300 guineas or nearly $1500. She was pronounced the *gem* of the sale, and brought far the highest price of any sold. The total shows that 45 head of bulls, cows and heifers, including 15 calves of the present year, realised the large average of £60, or nearly $300 each.

Crops, &c. in Illinois.—Extract of a letter from Hainsville, Lake Co., dated Sept. 22—"Saturday and Sunday morning gave pretty evident signs of Jack Frost's visit, by the blackened leaf of the vines and other vegetables that are tender. I believe in the river bottoms there was a nipper a fortnight since. Those who had secured good seed corn and planted in good season, are realizing good crops, whilst the careless have scarcely an ear to gather. Farmers should gather their seed corn before they do the bulk; dry it thoroughly, and store it in a place secure from mice and moisture. The loss in this neighborhood by planting imperfect seed is incalculable. Threshing is now getting well on, and the crops of grain prove to be very light. Wheat on the open prairie yielding from eight to ten bushels to the acre. It was much injured by the heavy rains in the spring and subsequently by the chinch bug. Adjoining the woods it was considerably worse."

Reaping Machines *vs.* Hand Labor.—The English *Ag. Gazette* calculates that if manufacturers could only distribute 10,000 reapers before another harvest, it would be equivalent to more than letting loose all England's standing army on the grain fields of Great Britain. And it further remarks—"Had we had such means at our command this year we should not now have had to complain of one-half our crop being five days in the rain. Supposing these machines to have been a week at work, 500,000 acres would have yielded 2,000,000 quarters of grain, worth more both in money and as food, by much more than the value of the machine, than it now will prove to be. And the ground would have been cleared a fortnight earlier than it will for autumn cultivation and the other sources of employment which energetic agriculture furnishes."

Tornado in Illinois.—Dr. Kennicott, of West Northfield, (the well-known Secretary of the Illinois Agricultural Society,) in a private letter dated Sept. 13, says, "We have had heavy rains lately, and another tornado—confined to *one farm*—my brother Joseph's—where it uprooted corn—scattered 40 tons of hay, and the grain stacks of 30 acres to the "four winds of heaven"—also *twisting* off 18 feet square of barn roof, &c. * * * We have had a very singular season thus far—cold and dry—dry and cold. All through August it was cool—for a week at a time the mercury was below 50° at sunrise—no frost.

The Height a Colt will Attain when Grown.—Mr. J. R. Martin, of Lexington, Ky., gives out the following upon this point:—I can tell you how any man may know, within an inch, the height a colt will attain to when full grown. The rule may not hold good in every instance, but in nine cases out of ten it will. When the colt gets to be three weeks old, or as soon as it is perfectly straightened in its limbs, measure from the edge of the hair on the hoofs to the middle of the first joint, and for every inch it will grow to the height of a hand of four inches, when its growth is matured. Thus, if this distance be found sixteen inches it will make a horse sixteen hands high. By this means, a man may know something of what sort of a horse, with proper care, he is to expect from his colt. Three years ago I bought two very shabby looking colts for $20 each, and sold them recently for $200. So much for knowing how to guess properly at a colt.

Wheat in Western New-York.—Mr. J. Johnston, in a postscript to a recent letter to the editors, says—"Wheat is turning out badly on threshing, and barley very well, and bringing a good price. The acreage of wheat will be small next harvest in Western New-York, barley pays so much better; in fact with many this year, wheat don't pay at all."

Monument to Mr. Downing.—A tasteful monumental stone, says the *National Intelligencer*, to the late Andrew J. Downing, has just been placed in the Smithsonian grounds by the friends of that valuable and lamented citizen. The monument consists of a large and massive vase, finely carved, resting on a block of four feet square, with sunken panels, each containing appropriate inscriptions descriptive of the virtues and professional merits of the deceased, who was distinguished as a landscape gardener, and writer on rural subjects. The entire structure is ten feet six inches high. The Government and public of Washington are indebted to the taste and judgment of Mr. Downing for the beautiful arrangement of the parks and public squares of that city.

The Onion Worm.—Mr. S. G. Crocker, in the *Maine Farmer*, gives the following directions for destroying this plague of the onion cultivator:—"When the onions are four or five inches high, sprinkle them well with spirits of turpentine. I have both seen this tried, and tried it myself, with success. You cannot put on enough to hurt them."

Fay's Early Ann Peach—Northern Muscadine Grape.

In the list of choice peaches in the Rural Register for 1856, no mention is made of Fay's Early Ann. Has it not redeemed the promise of excellence it gave on its first appearance?

From the liability of Serrate Early York and Early Tillotson, to rot on the tree, about the time of ripening, I had looked to Fay's Early Ann with considerable interest.

What are the merits of Early Northern Muscadine grape, as compared with Isabella? Southern Ohio.

The list of peaches in the Register for 1856, was intended to embrace those only which had been widely and amply proved as of undoubted excellence or value. Fay's Early Ann is a new variety, fruited only to a limited extent. It is rather smaller than Serrate Early York and Early Tillotson, and hardly equal to them in flavor; but, ripening at the same time, bearing more uniformly in unfavorable seasons, and being a glandular-leaved free-growing variety, it has some points of superiority. If a wider trial establishes its general adaptation, it may yet take its rank among a select list of the most desirable peaches, although we cannot avoid some fears that it may occasionally be too small and insipid to prove generally popular.

The Northern Muscadine grape is inferior in quality to the Isabella, but ripens much earlier. It is a variety of the early brown Fox grape, which many dislike, and such would regard the Northern Muscadine as of little value. At the far north, where the Isabella does not ripen into its peculiar rich and sweet flavor, but remains sharp and austere, the Northern Muscadine, fully matured, may compare very favorably with it, and be regarded by some as superior.

Inquiries and Answers.

On the Use of Muck.—I should like to get some advice from you about swamp muck. We mean to manure a field with it, to be put into corn next spring. Our muck is in a small cat swamp, which is dry now from the long drought. It is soft and pretty well rotted, and is under water all winter. Sheep lay on it most of last winter, and some of the washings of the barn-yard go into it. Now I want to know whether it would pay as well to haul it directly on the land, spread it, and plow it under, as it would to put it in a large heap, or compost it with barn-yard manure, and let it be till spring. By plowing it in this fall, the land gets tho advantage of a fall plowing, besides saving a double handling of the muck. Two years ago this fall, we hauled out some of it, put it in a large heap, composted it with barn-yard manure (through the winter), let it lie till next fall, and put it on for wheat. But we found it rather a troublesome job from beginning to end. In the first place, putting the manure in thin layers with the muck, was tedious work; then in loading and spreading it; it could be worked well with neither a shovel nor a fork. The manure was not rotted enough for the shovel, and the muck could not be pitched with the fork. Now where the compost has to be used next spring, the manure will have still less time to rot. If the land is not manured in the fall it cannot be plowed in the fall, as it would then be too soft for hauling out manure on. Any advice from you through the next Cultivator, or hints as to a cheaper way of making compost, would be thankfully received by A Reader. *Summit Co., Ohio.*

Owing to a want of information on several particulars, we can only answer our correspondent conditionally, or by suggestions. If the quantity of manure mixed in among the muck, by the wintering of the sheep, and washing of the yard, is quite large, say one-fifth to one-third of the bulk of the muck, then we would recommend its immediate application to the land. But there is no probability that the proportion of manure is nearly so large; and the next inquiry is. how much would the muck alone benefit the land? This can only be determined by experiment; for we have seen it in some rare instances nearly double the crop, but in most cases it exerted little or no benefit.

We think that quite wet or water-soaked muck is of no use as an absorbent of manure, and using it in this condition may be the reason why the compost experiment was so unsuccessful. We have never found any difficulty in the complete rotting of long manure in three or four summer months, when placed in alternate layers with dry sods, each layer being four or five inches thick.

If the soil needs the application of the vegetable mold of the muck, and the question occurs whether to apply it this fall alone, or in compost early in spring, we should say decidedly, apply the muck alone now, plow it in this fall, if plowing is desirable, and then spread the manure during winter on the top of the soil. The winter and spring rains will soak it into the earth, and two or three smart harrowings in spring, followed by plowing, will mix both manure and muck well with the soil.

But the most perfect way, doubtless, is to have the muck well dried, and then mix it with the manure in tho yard, during winter, as the manure is thrown out of the stable, and let it lie through most of the summer.

Suffolk Swine.—A correspondent at Milan, Ohio, speaks in the highest terms of this breed of hogs, and says that their introduction into that vicinity has been the cause of a very decided improvement in the swine of that region

The "Spirits."—Please inform me in your answers to inquiries, by whom the paper called the "Spirit of the Times," is published, and on what terms. W. D. McG. *Wellsburg, Va.* [The old and original *Spirit of the Times* is published at 233 Broadway, New-York, by John Richards, proprietor. A paper recently commenced, and styled *Porter's Spirit of the Times*, emanates from 346 and 348 Broadway, New-York, where it is published by Wm. T. Porter and George Wilkes. Specimens and terms of both, may probably be had by addressing them respectively as above.]

Concord Grape.—I procured in the spring of 1855, a plant of the *Concord grape*, and this season it has fruited. In most respects the fruit answers the description given in the *Cultivator*—but in its *size* I am much disappointed; the bunches and berries being somewhat smaller than the *Isabella*. Can it be the *Concord* grape? I feel reluctant to trouble you with a matter of so little importance, but your opinion as to its genuineness, in the next number of the *Cultivator* will be thankfully received. A Subscriber. *Fort Hunter, N. Y.* [It is impossible to decide as to the genuineness of the plant from this statement. The size of the fruit depends much on the culture and management of the vine. We should not expect full size fruit on a vine one year planted, unless great attention had been given to it.]

Fatting Sheep.—Could you or some of your numerous correspondents, through the columns of your valuable monthly, inform me of the best way to fat sheep for the butcher. I have 10 or 12 wethers in good condition now, that I wish to have very fat by the 1st of January next. I cannot find in the back No.'s of the Cultivator any directions for feeding sheep for fatting exclusively. Do they in cold weather require to be closely yarded? How much grain do they require daily? And what kinds of grain? How will corn ground in the ear answer? Or are *roots and grain* better? When shall I begin to feed? Any directions in connection with this matter will be thankfully received by A Young Farmer. *Bainbridge, N. Y.* [We hope some of our readers will be able to comply with the request of our correspondent.]

Lime Brick.—Can you or some of some readers, give me the address of Mr. Foster, the patentee of the "Lime Brick," described in the Co. Gent. of Aug. 7th. e. m. c.—[We do not not know it—perhaps some of our readers will furnish it.]

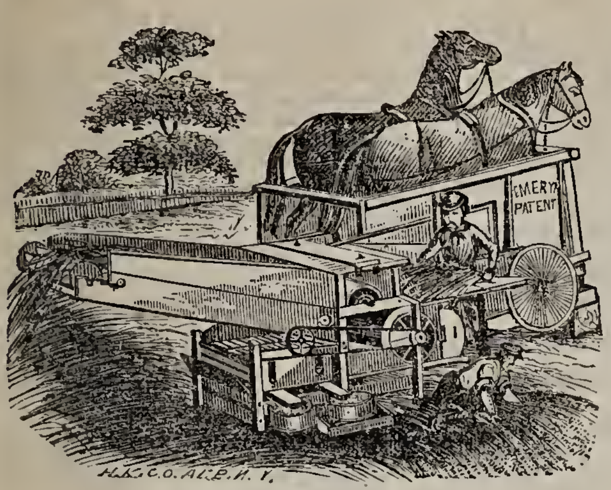
☞ Where can Mr. Carson, the engraver, be addressed? E. B. [His address is R. H. Carson, New-York city.]

Subsoiling.—In answer to "A Reader," Summit Co., O., we can state with confidence, that subsoiling will be of very little, or at best of quite temporary benefit, if performed on wet land. For, when well soaked with water, the parts of the subsoil that have been broken and crumbled by the subsoil plow, are again made into a compact mass by the abundance of the water, and the benefit of the operation is lost. Draining—*draining*—draining, is the thing—without which subsoiling is soon lost, and manuro is locked up in soil, and cannot be available.

Millet is about equal to Indian Corn for plowing in, and not nearly equal to tho same bulk of clover. Will somo of our readers who have had experience with the best way of curing it, please furnish us with a statement.

Georgia Pomological Society.—At a Fruit Convention held at Athens recently, a Pomological Society was organized, of which Rt. Rev. Stephen Elliott, D. D., was elected President; Mark A. Cooper, Esq., Vice President; Wm N. White, Secretary; and James Camak, M. D., Treasurer, for the ensuing year.

Great Barley Crop.—The *California Farmer* says that Mr. P. D. Bailey, of Napa city, raised the past summer *three hundred and fifteen* bushels of superior barley on *three acres*.



EMERY BROTHERS,

ORIGINAL AND SOLE PROPRIETORS OF THE

ALBANY AG. WORKS,

ON HAMILTON, LIBERTY AND UNION STREETS.

Warehouse, Seed Store and Sales Room, 52 *State Street, Albany, N. Y.*

MANUFACTURERS and Wholesale and Retail Dealers in Emery's Patent Railroad Horse Powers and Overshot Threshing Machines and Separators; Agricultural Machines and Implements, of the latest and most improved kinds extant; Dealers in Grain, Field, Grass, Garden and Flower Seeds, and Fertilizers.

The proprietors of the above named establishment are the sole owners and manufacturers of Emery's Patent Horse Power, &c.

The proprietors having been long engaged in this department of machine manufacturing, their manufactures enjoy a widely extended and favorable reputation throughout the United States as well as many foreign countries—and they pledge themselves to their friends and the public as heretofore, to spare neither pains nor expense to make their machines upon the best known plans and of superior materials and workmanship.

No similar establishment has devoted more attention, care or expense to the improving of this class of machines, and they flatter themselves that none have been more successful in rendering useful and popular the articles gotten up and introduced. Their work is all done in a style peculiar to themselves, and is so easily recognized that a little attention will enable buyers to detect imitations which are sometimes attempted to be palmed off under the reputation of the genuine. In all cases which will admit of it, the name "Emery" appears in raised letters upon the castings of the machines. The improvements in their manufactures have led to improvements in every branch of their works and to almost every labor-saving machine used therein. Each operation is performed by patterns and gauges; no time being lost or liability of error risked, as in the old method of setting out work by the square and rule (these being almost obsolete in their factories). This thoroughly systematic arrangement insures perfectly uniform construction in all machines or articles of the same kind, and warrants the second as good and as perfect as the first, while it reduces the expense for labor some ten or twenty per cent., by which saving they are enabled to add to the strength, weight and quality of the material used, and thus to produce a superior article without increase of price to the buyer.

Their Horse Powers, Threshers and Threshers and Cleaners combined, have during this autumn been exhibited in operation, and received the *First* and *highest* Premiums, awards and encomiums by the Judges, after severe and protracted trials, in competition with nearly if not quite all other kinds in use in this country, at the following Fairs:

New-Jersey State Agricultural Society.
Pennsylvania do do do
Michigan do do do
Kentucky do do do
Wisconsin do do do
Ohio State Board of Agriculture.

They will also be exhibited at the Fairs in East and West Tennessee, at Knoxville and Nashville, at Georgia State Fair at Atlanta, Virginia State Fair at Richmond, Illinois do at Alton, New-York State do at Watertown, the American Institute at New-York, and at the National Agricultural Fair, Philadelphia, besides numerous local Fairs throughout the country.

For particulars, prices, terms of sale and warranty, description. &c., see Illustrated and Descriptive Catalogue, which will be sent free to all applications by mail or otherwise.

EMERY BROTHERS,
Oct. 23—w2tm1t 52 State-Street, Albany, N. Y.

50,000 *APPLE SEEDLINGS.*

THE subscriber offers for sale 50,000 two-year-old Apple Seedlings, well-grown—all suitable for grafting. They are grown upon upland and have firm roots. They will be delivered at the R. R. Depot or Canal in Lyons for Five Dollars per Thousand, free of all charges.

E. WARE SYLVESTER,
Oct. 23—w3tm1t Lyons, N. Y.

Lawton Blackberry Plants,

NOW ready for delivery—sent, carefully packed, to any part of the Union:

Half a dozen plants,......................	$ 3 00
One dozen plants,........................	5 00
Fifty plants,................................	15 00
One hundred plants,.....................	25 00

C. M. SAXTON & CO., Ag Book Publishers,
(Agents for WM. LAWTON,)
Oct 23—w2tm1t 140 Fulton-st., New-York.

MORGAN HORSES.

A PREMIUM ESSAY on the Origin, History, and Characteristics of this remarkable American breed of Horses. Tracing the pedigree from the original Justin Morgan, through the most noted of his progeny, down to the present time. With numerous portraits. To which are added hints for Breeding, Breaking, and general Use and Management of Horses, with practical directions for training them for exhibition at Agricultural Fairs. By D. C. LINSLEY, Middlebury, Vt. Price, One Dollar. Sent free of postage.

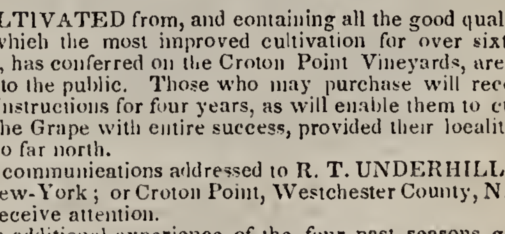
C. M. SAXTON & COMPANY,
Agricultural Book Publishers,
Oct 23—w2tm1t 140 Fulton-st., New-York.

PEAR TREES.

250,000 Pear Trees, Standards and Dwarfs; the finest lot ever raised. Those who have been in the habit of importing would do well to look at these. Among the varieties are the Rostiezer, Beurre Langelier, Beurre d'Anjou, Beurre Clairgeau, and other new ones.

Those who plant these this fall, will find at the end of next season, they will be nearly double the size that the imported ones will that shall be planted next spring.

Oct. 1—m2tw2t.* GEO. W. WILSON, Malden, Mass.



ISABELLA AND CATAWBA GRAPE VINES,

OF PROPER AGE FOR FORMING VINEYARDS,

CULTIVATED from, and containing all the good qualities which the most improved cultivation for over sixteen years, has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

All communications addressed to R. T. UNDERHILL, M. D., New-York; or Croton Point, Westchester County, N. Y., will receive attention.

The additional experience of the four past seasons gives him full assurance that, by improved cultivation, pruning, &c., a crop of good fruit can be obtained every year, in most of the Northern, and all of the Middle, Western and Southern States.

N. B. To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vine-dressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.

Oct. 9—w5tm1t R. T. UNDERHILL, M. D.

Fresh Imported Hyacinths, Tulips, &c.

THE subscribers have just received from the leading Florists in Holland, an unusually fine and extensive assortment of Double and Single Hyacinths, Tulips, Polyanthus Narcissus, Double Narcissus Jonquilles, Crocus, Crown Imperials, Fritillarias, Gladiolus, Iris, Ixias, Lilies, Arums, Anemones, Ranunculus, Colchicums, Snowdrops, Aconites, Oxalis, Lachenalias, Amaryllis, Early Roman Narcissus, &c., &c., to which they invite the attention of amateurs. Retail Descriptive Catalogues, with directions for culture, furnished applicants enclosing a stamp for return postage.

Dealers and Nurserymen supplied in quantities at as low rates as usually paid for the refuse bulbs from auction.

A good assortment of Hyacinth Glasses, Fancy Crocus Pots, &c., &c. JAMES M. THORBURN & CO.,
Aug. 28—weow6tm3t 15 John-st., New-York.

Hickok's Patent Cider Mill and Press.

PERSONS wishing to purchase this *valuable cider-mill*, will please send in their orders early, as we could not supply the demand last year. It has *improvements* over *last year's mill.* Price $40.

GRIFFING BROTHER & CO.,
Aug. 21—w&m3m 60 Courtlandt-st., New-York City.

KINDERHOOK NURSERY.

THE subscriber having purchased the Kinderhook Nursery of Mr. Henry Snyder, has ready his catalogue of FRUIT and ORNAMENTAL TREES, SHRUBS, VINES, &c., with prices attached, and will forward to all those whose applications are accompanied with a stamp. Address

JOHN H. CORNING,
Aug. 7—tf. Valatie, Columbia Co., N. Y.

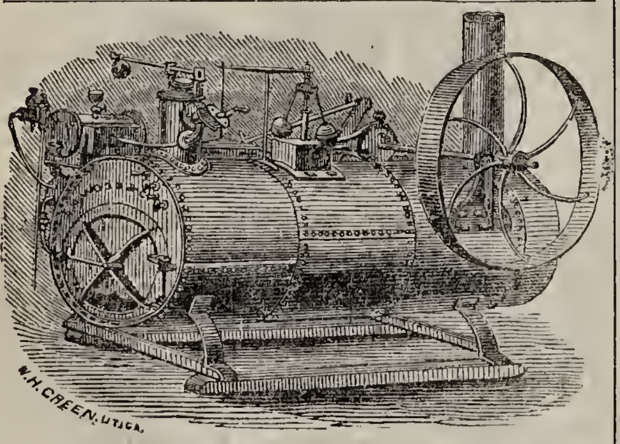
RARE SEEDS.

GROWN under the personal supervision of the subscriber, warranted *true genuine seeds*—enough of which will be sent to supply a large family, on reception of price pre-paid.

CASSABAR MUSK MELON—A beautiful and delicious fruit, (Asiatic origin,)	25 cents.
ORANGE WATER MELON—Peels off like the rind of an orange—very fine flavor,	20 cents.
GLASS LEMON—A beautiful little melon for preserves when green,	25 cents
CHINESE ASPARAGUS—Annual, and equal to the common—easily raised,	20 cents.
FIVE FEET CUCUMBERS — Very large and curious to behold,	25 cents.
MAMMOTH PUMPKIN,	20 cents.

Or the whole for one dollar, sent by mail to any address.

JOSEPH L. ASHBY,
Sept. 11—m2twtf Plattsburgh, Clinton Co., Missouri.


W.H. GREEN, UTICA.

PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

	PRESENT LIST OF PRICES.	*Weight.*
2½ horse power,	$225	1500
3 do	$275	1800
4 do	$340	2000
6 do	$520	3500
8 do	$680	4500
10 do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.

Jan. 31—wtf—May 22—mtf A. N. WOOD & CO.

LONG-WOOLED SHEEP.

THE subscriber offers for sale a part (say twenty-five,) of his flock of superior long wooled sheep, bred from the fine ewes which took the first premium at the State Fair at Saratoga, and at the American Institute in 1853. The increase is from the large imported Buck (nearly 400 lbs. in weight) which carried several first prizes the same year.

A few young Bucks are among the number for sale. Apply to O. S. CUMINGS, Trenton Falls, N. Y., where the sheep may be seen, or to A. P. CUMINGS,
Oct. 16—w4tm1t 138 Nassau Street, New-York.

FOR SALE,

CAHOON'S SEEDLING PIE PLANT,

Gooseberries, Currants, Grapes, Shrubbery, Bulbs, Tubers, &c.

I WILL securely pack in boxes, and forward according to directions, Ten Roots of my Seedling Rhubarb for $5; Five Roots for $6; One Root for $1; by the Hundred $40. Cash, in all cases, to be sent with the order.

TESTIMONIALS.

From the American Institute Proceedings, Aug. 5th, 1856:

MAMMOTH PIE-PLANT.—SOLON ROBINSON exhibited a stalk of Cahoon's Mammoth Seedling Rhubarb, grown at Kenosha, Wisconsin, that excited considerable curiosity. It was out of a box sent to The Tribune Office for distribution, and some of it on trial was found as rich and tender as that of smaller growth. It is supposed to be the most productive variety grown for culinary purposes, and should be in every market garden, and then, possibly, it would be grown in such abundance that it could be purchased by people in ordinary circumstances.—*N. Y. Tribune.*

Association for the Exhibition of the
Industry of all Nations, NEW-YORK, July 4th, 1854

B. P. CAHOON, Esq.—Dear Sir—This is to certify that specimens of your "Seedling Pie Plant," are on exhibition at the Crystal Palace, and deserving of special approbation for mammoth size and excellence of quality. They are superior to any production of the kind on exhibition.

Yours, Truly, P. T. BARNUM, President.

"We have received from Mr. CAHOON a box, well worthy the long journey from Wisconsin here. Two stalks we found to weigh respectively two, and one and a half pounds, one of them being *thirty-four inches in length.* The four stalks from plants of two years' growth, weighed together eight and one-half pounds—the largest one by itself *two and three-quarters pounds.* This last was 20 inches in length to where it was divided into smaller branches, *eleven inches in circumference* where it was taken from the root, and *seven inches around* in the smallest place. The stalks from this year's plants weighed, four of them, six and three-quarters, and another lot of the same number, four pounds. They are certainly superior to anything we have seen of the kind."—*Country Gentleman.*

MAMMOTH PIE-PLANT.—B P. Cahoon, Kenosha, Wis., has just sent us three Pie Plant leaf stalks that out-go anything we have ever seen of the kind before; as after performing the long journey from their place of growth—in what manner we are not informed—the three stalks weigh eleven and a quarter pounds.—*N. Y. Tribune.*

To the Cincinnati Horticultural Society:

Being on a tour through Wisconsin, I called upon Mr B. P. Cahoon, of Kenosha, who has a remarkable variety of Seedling Rhubarb. I examined his plantation of about 9,000 plants, and its wonderful properties have not been overrated. The Victoria I saw growing alongside of his Seedling, subject to the same treatment—soil identical—would not weigh one-fourth as much as the Cahoon Seedling. I can, through your Society, recommend the Plant to the notice of amateurs and cultivators as the best plant known. His stalks for market would measure from three to four inches wide, two or three inches thick, and two feet long, and so tender that many leaves I saw broke down with their own weight. It is a chance seedling, originated by Mr. Cahoon, from seed given him at Chicago, and was the only plant from the seed that was worth cultivation. Respectfully, Yours,

Cincinnati, Aug. 24th, 1855. JULIUS BRACE.

We counted on one root fifty-five stalks, of which the longest was two feet in length from root to leaf, and would girt eight inches or more. The others were of all sizes down to fifteen inches in length, and an inch in diameter, though the average would be twenty inches long and four or more in circumference. This root was not an unusual size, and was only an average of those which have stood three years and are allowed a fair chance. Mr. C. showed us a stalk preserved in spirits which is five and a half inches wide by twenty seven long —*Prairie Farmer, for September*, 1855.

Address B. P. CAHOON,
Oct. 9—w2tm2t Kenosha, Wis.

UNITED STATES AGRICULTURAL
Warehouse and Seed Store.

MAYHER & CO., Nos. 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,

FIELD AND GARDEN SEEDS,

ever offered for sale in the United States

Among our collection may be found the following, viz : —

Plows of every size and kind ever made, comprising some 150 different patterns ; also, the genuine Eagle D and F Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain ; also, Coffee Hand Mills, for cleaning and sorting Coffee ; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses ; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines ; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines ; McCormick's, Hussey's and other makers.

Churns ; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197, WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing, the subscribers as above. March 1—mtf

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Short-Horn Bull for Sale.

BEAUFORT, red and white roaned, calved Sept. 7th, 1855, got by imported Bates Bull Lord Ducie,* (13181) out of Daisy 7th by Duke, 444 A. H. B.—a son of Mr. Vail's imported Duke of Wellington (3654)—G. D. Daisy 4th by imported Wildame Bull Prince, 841 A H. B., G. G. D. Daisy bred by Gen. Van Rensselaer and got by President (4750)—Active by imported Washington (1566) ;—imported Pansy by Blaise (75) ;—Primrose by Charles (127)—by Blythe Comet (127)—by Prince (531)—by Patriot, (486) &c., &c. Price $200.

Beaufort is large for his age, is in fine order, and is a beautiful animal.

Also several very fine heifers, got by imported Lord Ducie,* (13181) ; and five cows of very superior characters and pedigrees, all thorough-bred. Prices ranging from $200 to $500 each. DR. HERMAN WENDELL,

Albany, July 31, 1856—w&mtf

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan. 1—w&m1y*

Pure Bred Suffolk Pigs.

THE subscriber has for sale a few very choice Pure-blooded Suffolk Pigs, bred from stock imported by Sol. W. Jewett, Esq. E. MARSHALL,

July 10—w&mtf Poughkeepsie, N. Y.

Willis' Patent Stump-Puller.

THIS is a Machine of vast power; and for extracting stumps, large or small, it has no equal. It will take out from 12 to 20 an hour, without difficulty, and with but a

SINGLE YOKE OF OXEN.

It is also the best Machine yet invented for

MOVING BUILDINGS.

All progressive men who desire to bring their waste lands at once into market, or a state of fertility, are invited to address or call on the patentee, WM. W. WILLIS, Orange, Mass., or John Raynolds, at C. M. Saxton & Co.'s, No. 140 Fulton-st., N. Y., where a working model may be seen, and other information obtained. June 12—w&mtf

---

To Farmers and Manufacturers.

The U. S. Flax and Hemp Co., No. 28 Pine-st., New-York,

MANUFACTURE the economical and yet successful Flax and Hemp Machines, and are prepared to fill orders for the different sizes of Hand and Power Flax and Hemp Brakes and Scutches made by them, for Mill and Plantation use, and sold with the fullest guarantee us to durability and performance.

Sixty tierces prime Flax Seed, selected for sowing, fo sale. Orders must be directed to E. F. HOVEY, at the Depot of the Company, 28 Pine Street. Refer to

EDW. S. GOULD,
July 10—w1tm5t* 17 William-st., New-York.

Bundy's Patent Potato Digger.

WE NOW offer this valuable *labor-saving* implement to the farmer. Price $6.

GRIFFING BROTHER & CO.,
Aug. 21—w&m3m 60 Courtlandt-st., New-York City.

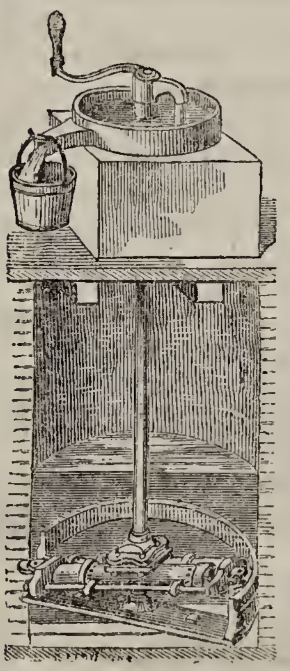
NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,

GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

Lindsey's Double Acting
ROTARY FORCE AND LIFT PUMP.



THIS pump has just been patented in AMERICA and ENGLAND, and far excels any pump heretofore invented ; its peculiarities are *simplicity*, *power* and *cheapness*. Its simplicity : there is nothing about it but iron and cast metal, and it can be taken apart and put up by any one, and will last for an age. It has the power to raise water HUNDREDS OF FEET. This pump is from 42 to 30 inches in diameter and must set in the well or water. Water rises in it by hand 100 feet per minute ! For cheapness : a No. 1 pump (for all ordinary purposes) complete, and fifty feet of pipe, costs but $30 ! The handle at the top, turns the pipe and pump, and every revolution fills the cylinder twice, affording an abundant supply of water with the least possible expense and labor. It is peculiarly adapted to DEEP WELLS, RAILROAD STATIONS, MINING AND MANUFACTURING PURPOSES. This pump does not throw water, and is guarded against freezing and rust. Practical and scientific men pronounce it as without an equal, for all that is here claimed for it. The "Scientific American," after seeing it in operation, says : "This pump is very simple in construction, not liable to get out of order, durable, easily operated and economical ; we regard it as an excellent improvement." Circulars, with an accurate drawing and full description, sent free of charge to all parts of the country. No. 1, has a one inch pipe ; No. 2, 1¼ inches ; No. 3, 1½ inches ; and the prices, with 50 feet of pipe, **$30, $42,** and **$54** ; the No. 2 and 3 are desgined for *very deep wells, railroad stations, &c*, where much water is required. The subscriber is the general agent for the sale of these pumps to all parts of the world, and EXCLUSIVE AGENT FOR NEW-YORK. Orders must be accompanied by the CASH, and should be explicit as to the kind of pump wanted, depth of well, shipping address, &c. They will meet prompt attention. A pump and pipe weighs about one hundred and seventy pounds. No charge for shipping or cartage. Wells over fifty feet should have extra gearing, which costs $3. JAMES M. EDNEY,

Commission Merchant, 56 John-Street, N. Y.

For sale also by H. LINDSEY, Inventor, Asheville, N. C.

July 3—weow2m6t

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The Horse, Most Noble Animal.

THAT indefatiguable laborer in behalf of true Veterinary Science, Dr. George H Dadd, has in press to be published by us during the winter, the most superb work on the Horse ever published in the world, entitled

The Anatomy and Physiology of the Horse.

In one large octavo vol. of 300 pages. Illustrated with 20 superb Anatomical Plates of the Horse, from a great French work.

Price with colored plates, ... $4
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Orders for this elegant and valuable work in advance of publication, are solicited by the Publishers.

Also, just published, the Eleventh Thousand of

The Modern Horse Doctor, by Dr. George. H. Dadd.

Undoubtedly the best work ever issued from the American press on THE CAUSES, NATURE AND TREATMENT OF DISEASES AND LAMENESS IN HORSES. Price $1. Every man who owns a Horse, should own this book.

JOHN P. JEWETT & CO., Publishers.
Oct. 30—w&m4t 117 Washington street, Boston.

The EXCELSIOR Horse Power, Thresher, Separator, Cider-Mill and the Farmer,s Feed Mill, were awarded the first premium at the New-York State Fair held at Watertown. These Machines are universally acknowledged to be the best made in this country, and always prove themselves as such when they are used or come in competition with other *such machines*. They are well known in every part of the United States and Canadas, and are manufactured by Richard H. Pease, Esq., of this city. —*Albany Morning Times.*—Local Agents wanted.

RURAL PUBLICATIONS.

PREMIUMS OFFERED FOR 1857.

New Volumes and Increased Attractions.

LUTHER TUCKER & SON, ALBANY, N. Y.,
PUBLISH

The Country Gentleman—Weekly—A Journal for the Farm, the Garden and the Fireside. New Volumes commence the first of January and July—each number consisting of **Sixteen Large Quarto Pages.** Two Dollars per annum. "Without question THE BEST Agricultural paper in the United States." Hon. John Wentworth, *of Illinois.*

The Cultivator—Monthly—A Magazine of thirty-two octavo pages, now in its **twenty-third** year, and to commence with January next the 14th volume of its Third Series. It is now "made up" from the Country Gentleman, and though furnished at the low price of Fifty Cents a year, continues to maintain the rank it has ever held as the most Practical **Farmer's Paper**, and the ablest **Scientific Authority** in its peculiar sphere.

The Illustrated Annual Register of Rural Affairs—an annual volume of 144 pp., duodecimo—illustrated with 150 engravings. Number Three, for 1857, just issued, is even superior to its predecessors, and, like them, forms a convenient repertory of more Practical Information, interesting to every Country Resident, than can elsewhere be obtained at Four Times the Cost. Price Twenty-five Cents. Bound Fifty Cents.

A Premium to Every Subscriber

To the Cultivator! As will be seen by reference to our Club terms on page 345 of the present number, Ten Copies of the Cultivator are offered for $5—together with a copy of the Register as a Premium to each subscriber! Twenty Copies each of the Cult. and Reg. for $10 ☞ *and an* EXTRA COPY *to the one who makes up the Club.*

Premiums to Agents.

We make the following offer to those sending us the largest amount in cash subscriptions to our Journals for the year 1857, previous to the 10th of April next:

1. For the largest amount,. FIFTY DOLLARS.
2. For the next largest,.... FORTY-FIVE DOLLARS.
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10. For the FIVE next largest—Each FIVE DOLLARS in Agricultural Books from Saxton & Co.'s Catalogue.

It will be perceived from the above that we have increased somewhat the amount of the Premiums open to competition. We offer also the following

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For $20 sent for Subscriptions to either or both our journals, we will send an extra copy of the Country Gentleman free for one year to the Agent, and any $1.00 or $1.25 book on Saxton's List of Agricultural Publications, provided no other Premium be taken.

For $30—The Country Gentleman and Two Dollars, in Books, as above, provided no other Premium be taken.

For $40—The Country Gentleman and Three Dollars in Books, as above, with the same proviso.

For $50—The Country Gentleman and Five Dollars in Books, as above, with the same proviso.

Specimen Numbers.

Of the Cultivator and Country Gentleman are freely supplied to all Applicants. We will send a copy of the Register to any one wishing to make use of it to procure subscriptions, on being informed to that effect. Address all letters of inquiry, or orders accompanied by the cash, to

LUTHER TUCKER & SON, Albany, N. Y.

FORBES.

THE CULTIVATOR.

VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. IV. ALBANY, DECEMBER, 1856. No. XII.

To Our Agents and Friends.

WE DEPEND ON YOU.—In the November number we presented some arguments in favor of agricultural papers generally, and the CULTIVATOR in particular. We now wish to remind our readers, how much we are necessitated to depend upon local agents,—gentlemen interested in the agricultural progress of their own neighborhoods, to make up clubs for it. The exertion of a few hours, or a day or two, will perhaps put in the hands of from ten to fifty or a hundred individuals, an assistant and teacher of the greatest benefit in his pursuit, during the next twelve months.

THE CULTIVATOR AS A COUNSELLOR.—We are willing to warrant that no farmer can read the CULTIVATOR for 1857, without being reminded of some duty otherwise forgotten, informed of ways or means, where the end sought would otherwise be unattained, and led to enter upon 1858, a considerably more accomplished agriculturist than he now is.

AS AN INVESTMENT.—Fifty cents, if hazarded with even a chance of winning Five or Ten Dollars, would be considered a very little sum. We offer for it, in the first place an amount of reading matter that in book form would be cheap at three times its present cost, and secondly, the almost absolute certainty that by its aid many a dollar may be actually saved, and many an additional one made by any thinking farmer.

THE VOLUME FOR 1856.—We are not afraid to assert that the volume of which this is the closing number has been a most decided improvement upon its predecessors, and we earnestly ask its readers to record their opinions on this subject in our subscription list for 1857. We shall leave no means within our power unattained, to make it still more worthy of the patronage of the reading Agricultural community. We are now concluding such arrangements as can but add materially to the freshness, value and interest of its contents.

THE GIFT-BOOK OF THE YEAR.—The REGISTER OF RURAL AFFAIRS should not be forgotten in speaking of the Cultivator, as it is presented, according to our terms, to every club subscriber. Nearly 50,000 copies have been circulated of the Numbers for 1855 and 1856, an unparalled mark of public appreciation. The number we now offer is fully equal to its predecessors, and is offered as altogether superior, at its price, to anything that has heretofore appeared in the course of our Agricultural literature.

PROSPECTUSES.—Owing to a delay in printing, Prospectuses were only sent out with a small portion of the edition of the November number. They will be furnished to the balance of our subscribers, herewith, and we hope that every one will aid in their circulation.

A BEAUTIFUL SHOW-BILL.—We have just issued a finely illustrated show-bill in colors, which we will mail postpaid to any applicant, who will be obliging enough to place it where it can attract public attention. If Agents will inform us how many they can use to advantage we will immediately send them.

THE REGISTER has been already sent to Agents and others whom we hoped would use it for canvassing purposes. Any omissions will be cheerfully rectified. And if any subscriber will make up a club, when informed of his intention, we will send him a copy to aid in the effort.

TERMS OF THE CULTIVATOR FOR 1857.

One copy of the CULTIVATOR,	Fifty Cents.
Ten copies CULT. and ten of the REGISTER,	$5·00
Twenty of each (*with an extra one to the getter up of the Club*,)	$10·00

TERMS OF THE COUNTRY GENTLEMAN, FOR 1857.

One Copy	one year,	in advance,	$2·00
Three Copies	do.	do.	5·00
Five do.	do.	do.	8·00
Ten do.	do.	do.	15·00

TERMS IN THE BRITISH PROVINCES.

As we have to pre-pay postage on all papers sent to the British Provinces, EIGHT CENTS must be added to the above terms for each subscription to the CULTIVATOR and REGISTER, and TWENTY-SIX-CENTS for each subscription to the Co. GENT. Thus :

Ten copies of the CULT. and REG. will be	$5·80
Twenty do. (and one to Agent,)	11·68
Three copies Co. GENT., one year,	5·75
Ten do do do	17·50

☞ For list of Premiums offered see last page of this number.

☞ Clubs need not necessarily take their papers from the same Post-Office—they will be sent to as many different offices as may be required.

☞ The money in all cases to accompany the order, and subscriptions to the CULTIVATOR invariably to commence with the January number.

The CULTIVATOR may be had from the commencement of the Third Series in 1853, neatly bound—price postpaid, $1 per vol.

Court-day in Bourbon.

(Correspondence of the Country Gentleman.)

Among the institutions of Kentucky, its Court-day Cattle, Horse and Mule Fairs are prominent; and conspicuous among them all, stand those of Bourbon co., of which the usually quiet, old-fashioned town of Paris is the capital. As we consider these court-days most advantageous to the Kentucky farmers, we propose to describe one of them.

First, then, be it understood that central Kentucky, composed of six or seven counties, of which Lexington is about the geographical centre, is claimed by the Kentuckians themselves, and not particularly disputed by others who have seen it, as, taken altogether, the finest cattle, horse and mule country in America. To these may be added the uncouth creature from which the mule derives a share of his parentage, the ass, nowhere bred and grown in higher perfection than there. This noble country is about seventy miles long, east and west, and fifty in width, north and south; every acre of it available, and in cultivation either in plowed crops or blue grass pastures, with an occasional meadow of timothy for hay. Though a great stock breeding country in itself, thousands of cattle and mules are brought in from the surrounding regions of the State, less favored in soil and wealth, and from other States beyond, to be reared and fed off, or trained for market, in these rich pastures and cornfields. And as the great business of the country is agriculture, these descriptions of stock and the food to sustain them, absorb the attention and capital of its farmers. From long custom, "court-day," that is, the first Monday in each month, has been the gathering time of the people for business objects at the county seat, and it is now as inseparably connected with stock-jobbing—not Wall-street fashion, in corporation stocks and money—but in selling and buying farm stock of all descriptions.

As we said, other counties have their court-day fairs, but Bourbon claims precedence over them all; and tell a Bourbon man that they had a good attendance at Lexington, Versailles, Frankfort, or Georgetown, on such a day, and he will contemptuously throw it aside with, "possibly—but it is not a circumstance to Bourbon!" Be it so then, and Bourbon shall be our point of observation, with the saving condition, that according to the good people there assembled on the day we saw it, being just after the State show, it was far less in attendance and material than usual at a like season of the year.

It was a charming, sunny October morning, with a gentle wind fanning a thin, blue haze through the atmosphere. All around the quaint little town shone out from their natural parks, the grand old trees in the faded green and yellow garniture of autumn. The bed of the Licking, passing through the deep valley below, held a few scattering pools of water, for the warm summer drought had dried up every flowing channel in its wayward course, and barely enough remained to water the numerous droves of cattle, mules, asses, and the horses of the riders, which a little after the court-house clock had struck eight, began to thread their way into town. As they were driven in, the several squads of animals were gathered into little paddocks which are enclosed at the foot of the hill just below the court-house, preparatory to being brought on to the "square" for exhibition and sale. Now, this square is a little huddled-up place, fronting on the main street, containing two or three acres, in the center of which is the court-house, with its wings of county offices, and around it some posts and a railing to which every rider as he comes into town on horseback "hangs" his horse—pretty much everybody coming in on horseback, by singles, couples, and squadrons, as they may or may not fall in with each other when issuing through the gates which lead out from their several farms and enclosures; for few people out of the towns live on the road, and a great majority of them pass through one or more farms belonging to others to reach the highway. By half-past nine o'clock the streets around the square are pretty well filled with people, a few pedlar's waggons containing harness, saddles, bridles, halters, &c., are stopped in front; a dozen or more auctioneers are in attendance, on horseback, ready for their work, and then the cattle, mules, jacks, jennys, horses, sheep and swine begin to gather in from the highways, or the paddocks below.

And now commences such a hubbub, and shouting, and auctioneering, but each in its own well known department, as is seldom or never known out of this aforesaid Paris. The buyers from the neighborhood, the adjoining counties, and the adjacent and distant States are all there, looking for what they want, and finding it, intent on making bargains. The stock-sellers, knowing quite as well what they are about, put their droves into the hands of the auctioneers, and in a few minutes a dozen tongues are laboring with might and main in crying their sales, and "throwing away bargains"—each one in the midst of the beasts which are awaiting the fall of his decisive hammer. One would think that in this confusion-worse-confounded of a dozen droves of mules, half as many of cattle, some of sheep, another or two of asses, three or four of hogs, and scores of single horses all mingled in the multitudinous mass, no one would know his own. But tho men in charge are up to it, keeping their beasts in compact knots, and rarely missing one from his fold, each of which seems to know its companions as instinctively as a brood of chickens do their mother. For two or three hours lot after lot is struck off, and as the sales are made, driven back into the paddocks till the bargains are settled, and the exchanges duly made.

By one o'clock the sales are chiefly over. The tavern dinner bell rings, and the assembled crowd adjourn to the tables. The inner man refreshed, the remaining unsettled business is closed up, the purchasers take possession of their new stocks, and by three o'clock in the afternoon hundreds of horsemen are seen mounted and wending their way out of town singly or in squads as they came in, while a few, perhaps, not selling their stocks to their mind, are seen with their men driving them back to their homes. In another hour the town of Paris is as quiet as if hardly a stranger had appeared in its streets, and transactions to hundreds of thousands of dollars in amount have all been settled and secured.

A gentleman conversant with the business of court-days, told us that he had frequently known the *bona-fide* transactions of the day to amount to more than $250,000. Stock is usually sold at two to four months time, on bankable notes, payable either at home, or in the eastern cities. Cattle buyers from New-York, Pennsylvania, and New-Jersey are frequently there, mule buyers from the same States, Maryland, Virginia, the Carolinas, and Louisiana, while much stock goes back into the same neighborhood from which it is driven to different owners, who still feed and further improve it for a future court-day sale.

This way of doing business we like. It brings every farmer and stock-dealer right up to the mark. The true value of stock is thus well known, men know what they can give, and pay it. Others know what they can afford to take, and sell. The business is done up, and no whining nor jockeying about it. Yet men are not obliged to sell, if prices rule too low. Sometimes on a dull day, sales are withdrawn and private negotiations effected; but when parties are in earnest, the sales are all made under the hammer; and a prompt way it is. If our New-York farmers could have their stock sales at central points, we believe it would be greatly to their advantage; but as they have smaller farms than in Kentucky, and deal in a smaller way, it may be sometime before they adopt it. Yet they must ultimately come to it, as we get our farming systematized, and the proper divisions of agricultural labors arranged. It will be long before our farmers can individually cope with those of central Kentucky in the number and value of their herds, but there is no good reason why they should not adopt a custom so useful in the sales and purchases of their marketable stock.

Chinese Sugar Cane.

Messrs. Editors—It is now generally known that, through the agency of the Agricultural Department of the Patent Office, seeds of the Chinese Sugar Cane have been imported and extensively distributed in small packages among farmers and others, in different sections of the country, for the purpose of testing its adaptation to our climate, &c., and the agricultural value of its forage and seeds for stock-feeding, and the more important purpose of sugar-making in latitudes farther north than the true sugar cane can be grown.

Within a few years past the Chinese Cane has been somewhat cultivated in France. The great object sought for there in the cultivation of this plant, is the juice contained in its stalks, which furnishes three important products, viz: sugar, which is identical with that of cane, alcohol, and a fermented drink analagous to cider.

"The chief advantages of the Chinese Cane as a sugar plant (says Patent Office Report, 1854,) is the facility of its cultivation and the easy treatment of its juice. It is thought the rough product may surpass that of the sugar-cane in those countries where the latter is an annual, and like which its stalks and leaves will furnish an abundance of nutritious forage for sustaining and fattening animals; as the molasses, too, is identical with that manufactured from cane, it may be used in the distillation of rum, alcohol, and the liquor called 'tafia,' which resembles brandy."

How far it may be for the interests of our country to go into the extensive cultivation of the Chinese cane for the manufacture of sugar and molasses, can only be determined by future and more extensive experiments. But facts enough have already been made public, to justify us in the belief that the Chinese Sugar Cane is no humbug. For experiments the past summer have fully proved that the cane can be successfully grown, in all latitudes from New Hampshire to Georgia, and doubtless on all soils adapted to the growth of Indian corn. And also, that the juice of this cane is extremely pure and rich in saccharine matter.

At page 220 of last Patent Office Report, is an engraving representing the plant at full maturity—the heigth of which is *marked* 7 feet 2 inches. But it has been grown in this State the past season much taller than represented in the engraving alluded to. Col. B. F. Cutter of Pelham, N. H., exhibited at the Hillsboro Co. Fair, 1st day of this month, stalks of it nearly 10 feet tall. At our State Fair, the week after, stalks raised in the garden of Hon. Rich'd Bradley, of Concord, were exhibited, measuring 11 feet, and there was no extra manuring or cultivation used in producing these splendid specimens of cane.

Last spring I received a small package of cane seed. It was planted late in May, on dry, gravelly land—seed sown in three drills 25 feet long, rows two feet apart. Its growth much retarded by drought in July and August. From this, and perhaps its being too thick in the drills, it only grew from five to six feet high. About the first of Oct. I cut it and fed to my cows; from the avidity with which the leaves and stalks were eaten, I came to the conclusion it was a No. 1 forage. But perhaps this plant may prove more valuable for fattening cattle, than for increasing the quantity of milk. Recently the cheaper kinds of molasses have been somewhat extensively used in England, as a portion of the feed given fattening animals. The constituent or elementary principles of sugar, starch, oil, and animal fat, being identical, and combined in nearly or quite the same relative proportions, the inference is that the extra saccharine juice of the cane may be a valuable food for fattening cattle, for says the Patent O. Report:—"There is also another feature in this plant which would seem to be worthy of notice, as a forage plant in the Middle and Western States; if the seeds are sown early in May, two crops of fodder can be raised from the same roots in the same season—say one about first of August, and the other in October."

About the middle of September, thinking my plants too thick, I cut out a portion of them; the roots left at the 'thinning out' soon threw up numerous shoots, that were thrifty and green. On the 13th of Oct., the day I turned my cattle into the field, I examined the seed on the cane raised by both, Mr. Cutter and Mr. Bradley, and thought that neither of them had matured sufficiently to vegetate. By early planting, on a dry, warm soil, I have no doubt but that the seed may be be matured as far north as the middle of New-Hampshire and Vermont.

Recently some cheering and valuable statements have been made relative to its value as a "sugar and syrup" plant, to which I will refer, the importance of which, Messrs. Eds., must be my apology for the length of this paper.

Mr. J. F. C. Hyde, of Newton Centre, Mass., in a letter dated 29th September, and published in the *Boston Daily Traveller* of Oct. 2d, says:

"My cane seed was planted about the 20th of May. It came up well and grew well, having reached the height of ten feet. A few days ago, the plant just being out of flower, or in other words past its bloom, I cut several stalks and stripped off the leaves, crushed the cane and pressed out the juice, which I boiled down to molasses; and a fine article it is—as good as can be bought for fifty or sixty cents per gallon. The juice is very rich in saccharine matter, yielding from a fourth to a fifth of its bulk in good molasses. I was anxious to make some sugar, but not knowing the art I did not succeed. I have not a doubt but the finest of sugar can be made from it, and make it pay. I did not attempt to make champaigne from it, though it is said to make a good article. The great difficulty is to express the juice from the stalks, and nothing I know of will do it effectually but a sugar mill, and those we do not have in these parts. But if this article proves on a further trial to be what I think it is, sugar mills will be erected in almost every town of the good old Bay State, and we no longer be dependant on slave labor for our supply of sugar and molasses. * * If this article should succeed perfectly, we cannot sufficiently estimate the glorious results of its successful cultivation. I fully believe from my limited experience that we may successfully compete with Louisiana with its slave labor in producing sugar and molasses. With this sugar cane no part is lost, the leaves are stripped off for fodder; the tops will answer for brooms, like broom corn, and even the refuse cane is said to make a fine article of paper. It is a fine article for stover, (green fodder) it is so rich in saccharine matter; cows, pigs, and even horses will eat the stalks as well as leaves with the greatest avidity. The seed when ripened is good for fowls, pigs, &c. I believe it to be one of the most valuable articles that has been introduced for many years, second in importance to few things a farmer can grow. It is very desirable that it should be more extensively grown another year, and careful experiments made with it, so as to determine its comparative value as a field crop. I hope we may hear from others who have raised it, that we may the better judge of its value on different soils and under different circumstances."

Surely, Mr. Hyde is quite enthusiastic and sanguine in his ideas of the great value of this newly introduced sugar cane; and I trust he has not overshot the mark, but I am led to believe future trials of the plant will fully sustain his patriotic views; for I have just received a printed circular from Richard Peters, Esq., Atlanta, Georgia, headed "Chinese Sugar Cane and Georgia Syrup," from which I will make some extracts. Mr. P. says—

"I feel it my duty to make known to the Southern public the result of my syrup making from the Chinese Sugar Millet, in hopes that others who have sown this valuable variety of millet, may be induced to work it up into syrup this season.

"I obtained my start of seed during the spring of 1855, from D. Redmond, Esq., of the "Southern Cultivator." I considered it a "humbug" from its close resemblance in seed and growth to the "Guinea corn," until my children, towards fall, made the discovery of its being to their taste equal to the true sugar cane.

"This year I planted one patch April 15th, another May 18th, near Calhoun, Gordon county, on land that would produce during a "seasonable" year, forty bushels of corn per acre, and this year not over twenty bushels.

"Seed sown carelessly in drills, three feet apart, covered with a one horse plow, intending to "chop out" to a stand of one stalk to six inches apart in the row, but failed to get a good stand, as the seed came up badly from deep and irregular covering; worked out, same as for corn, plowing twice and hoeing once.

"By suggestion of Gov. Hammond, of South Carolina, I determined to give the syrup-making a fair trial, consequently ordered from the Messrs. Winship, of Atlanta, a very complete horse-power mill, with vertical iron rollers, that has worked admirably, crushing out juice for eight gallons of syrup per hour, worked by two mules, with one hand to put in the cane and a boy to drive.

"On the 13th of this month (September), finding the seed fully ripe, I had the fodder pulled and the seed heads cut. Yield of fodder (leaves) per acre: 1,100 to 1,300 lbs. Yield of seed per acre: 25 bushels of 36 lbs. per bushel. First trial of mill, 70 canes gave 20 quarts of juice. 606 average canes, passed once through the rollers, gave 38 gallons and 1 quart of juice; passed a second time through, gave 2 gallons; 40 gallons and 1 quart, gave 8 gallons thick syrup—(nearly one gallon of molasses to five gallons of juice.)

"I carefully measured an eighth of an acre, having the best canes and the best stand, and another eighth having the poorest canes and the poorest stand. The result I give below, the canes having passed once through the rollers.

Best Eighth of an Acre.

Yield of juice from 3,315 canes,········	253	gallons.
" syrup from 253 gallons of juice,	58½	"
Rates per acre of syrup, ···············	468	"

(In this trial, 4½ gallons of juice yielded a gallon of syrup.)

Poorest Eighth of an Acre.

Yield of juice from 2,550 canes,········	179	gallons.
" syrup from 179 gallons of juice,	43¼	"
Rates per acre of syrup, ···············	346	"

(In this trial it required four gallons and one pint of juice for a gallon of syrup.)

Thirty selected canes weighed 49½ lbs., and yielded 25¾ lbs. of juice.

"The juice should be placed in the boilers immediately on being pressed out, then boil slowly until the green scum ceases to rise; then stir in a tea-spoonful of air-slacked lime to five gallons of juice; continue skimming and boiling until the syrup thickens and hangs down in flakes on the rim of the dipper.

"I have made the clearest syrup by simply boiling and skimming, without lime or other clarifiers.

"The lime is requisite to neutralize a portion of the acid in the juice; the true proportion must be determined by well-conducted experiments.

"The cost of making the syrup in upper Georgia, in my opinion, will not exceed 10 to 15 cents per gallon. This I shall be able to test another season, by planting and working up *fifty acres of the cane.*

"I am satisfied that this plant will enable every farmer and planter of the Southern States to make at *home* all the syrup required for family use; and I believe our chemists will soon teach us how to convert the syrup into sugar, for *export*, as one of the staples of our favored clime.

"Obtaining such *unlooked for success* with the Chinese sugar cane, I concluded to try our common corn. From a "new ground," planted 3 by 3, one stalk to a hill, a week beyond roasting-ear stage, I selected thirty stalks.

Weight of 30 stalks,···················	35¾ lbs.
" juice,···················	15¼. "
Yield of syrup,·····················	½ pint.

"The syrup of a peculiar disagreeable taste, entirely unfit for table use."

I have no wish to aid in getting up an undue *cane* excitement, of any kind,—but while I have pen in hand I will figure a little, because I think the statements of Messrs. Hyde and Peters afford us a pretty correct data or starting point. No doubt but the Chinese sugar cane, like all others of its genus, (Indian corn, broom corn, &c.,) is subject to great fluctuations in its yield, depending greatly upon the season, soil, manuring and cultivation it receives. Mr. Peters' land, in a favorable season, would have yielded forty bushels of corn; but the past being an unfavorable season, the yield of corn this year would not have been "over twenty bushels." Had the *past* been what Mr. P. calls a "seasonable" year, I can see no reason why his yield of cane would not have been double; as a sequence, instead of 468 gallons per acre, he would have had twice that amount, viz: 936 gallons. We have hosts of farmers in this State that readily raise 80 bushels of corn per acre; the presumption is, that the same soil and cultivation would produce a corresponding ratio of cane and syrup. If so, then the product would be quadrupled over that of Mr. Peters'—viz: 1,872 gallons. The fodder, seed, tops for brooms, and crushed stalks for paper, manure or fuel, ought to pay the expenses of cultivation.

Cost of making 1,872 gallons molasses, (taking Mr. Peters' highest figure, fifteen cents per gallon,) would amount to $180.80. Reckoning the syrup at 50 cents per gallon, (and that is less than the price of a good article here at this time,) it would make $936—less $180.80 for manufacturing, leaves a balance of $775.20, as the nett profits of one acre of land devoted to the culture of Chinese sugar cane, and manufacturing it into syrup. But throw out three-fourths of this assumed profits, and then there is a profit margin left, that ought to satisfy a man of ordinary desires.

The present high prices of sugar and molasses, makes the introduction of this sugar cane peculiarly fortunate at this time if it succeeds in future trials, as we have reason to expect.

Maple sugar was once an item of much consequence in this section of the country; but the enhanced price of wood in the vicinity of railroads, &c., with the labor of collecting the sap, boiling, &c., &c., makes it an expensive way of obtaining "sweetening" for family use. Levi Bartlett. *Warner, N. H., Oct. 22.*

We publish the above with pleasure, as we are glad to place on record the history of the introduction of this new plant. We know that neither Mr. Peters nor our correspondent have any desire to get up "an undue cane excitement," but yet we fear that the figures given above, may have a tendency to such a result. That the Chinese Sugar Cane may prove a valuable acquisition as a forage crop, and perhaps for making sugar, is possible—perhaps probable. It should, however, have a longer and more general trial, before extravagant hopes are indulged in regard to it. Mr. Peters, with his fifty-acre crop, next year will be able to show whether it can be advantageously grown in Georgia for making molasses and sugar. We are indebted to Mr. P. for a bottle of the syrup made by him the present season, from which we should infer that there could be little difficulty in converting the juice into a very palatable syrup.

The Trembles.

Eds. Co. Gent.—Several weeks back in a number of your invaluable journal, a correspondent from N. C., if I remember aright, made some inquiries of you or any one, regarding a form of disease by common consent termed "Milk Sickness." He asked for some information as to the cause of this distressing malady which has so far proven itself one of the opprobria of the profession. It is my fortune to be able to state without hazard, to a certainty, the cause or causes of this disease. I have waited thus long, hoping some one would take the trouble and offer some information, but I have seen none. The number which contained the request has been misplaced by me somehow; I am, therefore, not quite certain as to the locality of the writer.

The agents that cause this disease are Copper and Arsenic. The former found in a state of nature as an oxide or sulphuret, or in the form of its native salts, the carbonate, sulphate, or arseniate. The latter, too, as found in mineral regions. usually associated with other metals, and its salts impregnating the earth to a greater or less extent.

The following circumstance gave origin to the discovery. Some parts of the fertile State of Illinois, afford often in summer no stock water. The suffering stock will greedily suck empty every little puddle or track, or any place wherein water may have gathered. It so chanced at this season of the year, that in the little excavations left by some quarrymen who were getting out rock, small quantities of water would "seep," and the cattle on their way home from the rich but dry prairies, sought out and eagerly drank the water. The leading one of the herd and her yearling arriving first at the place, consumed pretty much all by the time the others got up. As the cow was owned by one of the workmen, she was noticed by him with some satisfaction at her drink. But by the following morning the cow and her yearling were seized already with the "trembles," and in a few days expired, whereas none of the balance of the herd suffered. The rich milk obtained from her ample bag was given to the children, and all of them had attacks of "Milk-Sick." The observation of the owner of the cow at the quarry, led to a further investigation. Those over sanguine for their own interest in their non-belief, furnished sheep, calves and colts to test the water, and every one perished. Again and again was this repeated, and each time the animal would be seized with the peculiarly characteristic symptoms of that disease, and die with the trembles. Some of the water was then obtained and sent to a thorough chemist for analysis, who pronounced it to contain Copper and Arsenic mainly.

Every symptom which marks this disease will bear out the truth of this discovery, more particularly in the human subject. The poisonous effects of copper and arsenic correspond entirely to the symptoms of this disease The effects of arsenic, it is too well known, are an interminable retching with a distressed, anxious expression of the countenance, indicative of almost complete collapse. Those of copper are not unlike in their action upon the gastro-intestinal mucous membrane, besides a muscular weakness amounting to a paralytic condition of the entire muscular system, as if all nervous influence was cut off, with excessive prostration and great tremor. The symptoms of the milk-sickness correspond exactly with the effects of these agents upon the human system.

If I recollect rightly, the writer from N C said that in his section the poisonous spots were known with that degree of certainty, that in many places, to prevent cattle from feeding on them, they had been fenced in. I will venture to assure him that if he will take the trouble to excavate a shallow pit in which during the night some water may collect, and have it subjected to chemical tests or analysis, some form of the salts of copper, and perhaps arsenic will be found. In travelling through a section of Illinois, sometime since, and while stopping for dinner, a district was pointed out to me as being much afflicted with the "milk sick." On resuming my journey, I shortly after rode into a creek and happened to notice some coal jutting out from the bank. I at once procured a piece, and on breaking it apart, found traces of copper all through it.

I give you these facts, Messrs. Editors, so that they may receive wider circulation, and also that observations at large may be made to either corroborate or refute them. I trust that every man so situated as to test these revelations, will do so and publish the results, and thereby contribute not only to the stores of science, but be instrumental in alleviating the miseries and diseases of his fellow mortals. Because when the cause of a disease can be come at with certainty, a course of treatment can be devised that must prove curative. Isaac Hutchinson, M. D. *Evansville, Ia.*

Fattening Sheep.

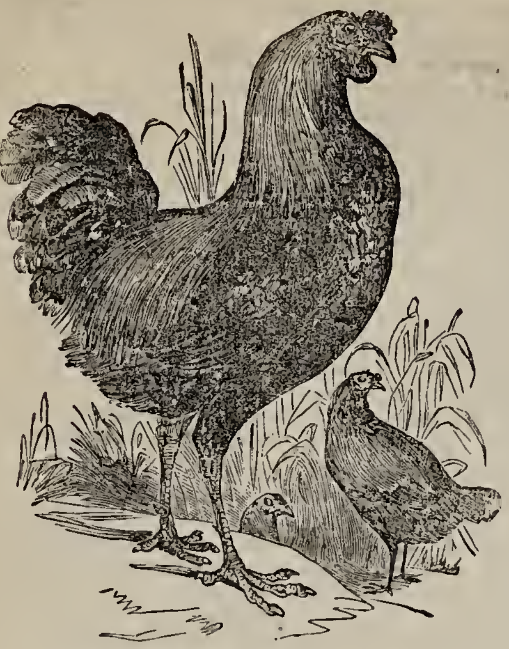
In answering "A Young Farmer's" inquiries upon this subject, made in the Co Gent., No. 13, Vol 8, I will merely tell him how other people's sheep have been fattened, and let him use his own discretion in following it, or not.

Sheep must be *well* protected in cold and wet weather. Sheds for this purpose are to be made, closed on every side but the south. Some straw should be provided in very cold weather for bedding. To fatten them, or any other animal in winter, keep them dry and warm. The more rest they have, consistent with health, the better they fatten.

They need two and a half to three pounds of hay each per day, and from one to three gills of ground corn, or corn and cob-meal. A varied diet of roots and grain is best, as it is not so heating as all grain. Steam the roots and chop them fine. One feed of roots and one or two of grain per day will lessen the amount of hay required. They must have fresh water twice a day at least—and a trough with tar sprinkled with salt, of easy access. Some green pine tops thrown in to them occasionally to browse on, are said to do well in lieu of the tar; but do not neglect to give them salt frequently. Chopped oats may be fed to them in place of corn, if preferred. They may be put up as soon as cold weather comes on, allowing them the use of a small lot in fine weather, with access to the shed. These are general directions, to be modified in their application to particular locations and circumstances.

In addition, allow me to advise "A Young Farmer," and old ones also, to provide themselves with a good agricultural library, in addition to their weekly or monthly agricultural journals. They will never regret the purchase, and I will guarantee an outlay of twenty-five dollars so expended, will be more than twice repaid by the information so procured. "A Young Farmer" will find "Randall's Sheep Husbandry" soon paid for, by its telling him how to put on an extra layer of fat on his twelve wethers, which will bring into his pocket some extra dollars.

When you want an agricultural book or treatise, ask the editor of your agricultural paper which is the best work, suited to your wants, locality, &c., upon the particular branch or subject needed, and he will not fail to give you good advice, especially if he is a *Country Gentleman*, or Cultivator. H. H. *Rose Cottage, La.*



The Malay Fowl.

This bird is still a native of the Malay Peninsula, which lies in the torrid zone in the extreme southeastern part of Asia. It is supposed to be the true *Gallus giganteus* of naturalists, and by some authors is called the *Kulm*, or *gigantic cock*.

Until the introduction of the Shanghai fowl, this bird was eagerly sought after by all who wished to obtain fowls of great weight. The heaviest birds have reach from 10 lbs. to 11¾ lbs. This fowl stands high upon the leg, and has often been known to take his food with ease from the top of a barrel head. Both sexes are quite quarrelsome. No breed of fowls can show greater variety of plumage than this, as some are white, others jet-black; there are also red, light brown, and dark brown birds.

The cock has a thick, low, wart-like comb; head neat and serpent-like; beak yellow, stout, and a little hooked; eye deeply sunk and piercing; wattles remarkably small, but there is much crimson flesh about the face and neck; plumage close and smooth, and of various shades of color; neck long, with short feathers; back much sloping; tail thin, long and flowing, the sickle feathers hanging quite low; shanks large, long and sinewy, and always yellow when carefully bred. His usual height is about 28 inches, and his weight from 9½ to 10 lbs., though they frequently exceed these estimates both in height and weight.

Our cut gives this bird too much breast, and is too short on the legs.

The most fancy colored birds are dark brown, almost black on the breast, back and thighs; neck-hackle and saddle a brilliant maroon, and very glossy on the upper side, inclining to yellow on the under surface; long wing quills, dark brown on the outer half; wing coverts metallic green; sickle feathers black, with a purple or green metallic lustre, according to the angle at which they are viewed.

The colors of the hen's plumage are less brilliant than those of the cock, and she is also much less in size, ordinarily weighing from 8 to 9 lbs., though rarely reaching 10 lbs.

The white variety is less in size than the brown, though in form they are nearly the same.

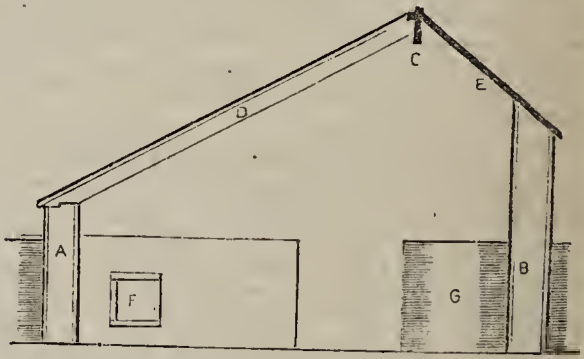
The hens are but moderate layers, are good setters, and fair mothers, if they are so fortunate as not to kill, by trampling, such chicks as may have passed through the smashing process of incubation. The chicks feather slowly, are tall, lean, and gawky, and it is difficult to fatten them before eight months of age. As table fowls they are coarse-grained, and of poor flavor, besides shrinking more in dressing than almost any other fowl. We should say, if asked, let them alone, unless they can be appropriated to some other use than for the production of eggs or for culinary purposes.

Something like forty years ago, some large fowls were brought from different ports of Southern Asia to the city and vicinity of Philadelphia. These were bred quite indiscriminately until of late, and the result was a large mongrel fowl of as many colors as affinities, which has passed under many names, as the "Ostrich Fowl," the "Turkey breed," the "Big breed," the "Boohy," the "Bucks County Fowl," and even the "Malay."

Cheap Green-Houses.

The accompanying illustration is a section of a small green-house or pit, erected by Mr. John Dingwall of this city, for propagating and forwarding verbenas chiefly, and as a forcing house for flowers.

The labor in building is not included in the estimate, that being performed by himself, excepting the sash, which was made by machinery, and cost $54. It is fifty feet long—the front 3 feet 6 inches high, and the back 5 feet, being chestnut posts let deep into the ground, and that part above the floor of the green-house boarded on each side the post with inch stuff, the cavity being stuffed with dry saw-dust, *a* and *b*.



The highest point in the roof is 6 feet 6 inches, along which runs a meeting rail, *c*., supported by uprights at the distances apart of eight or ten feet. On this rail rests the rafters, *d*, which are 3 by 3, but 2 by 3 stuff would answer equally well, and look better from the inside. The sash are in one length, made with glass 6 by 8.

The back roof, *e*, is nothing more than inch boards, battened over the joists to be water tight.

To economize fuel the back, *g*, has the soil left in.

The flue, *f*, is laid on iron plates, 3 feet long, 1 wide, and 3-16 thick, got up expressly for himself, which are cheaper than bricks and answer admirably their purpose. It must not, however, be used for the top of a flue.

There is a shed the width of the house, some ten or twelve feet long, attached to the entrance, in which is the fire-place, room for coal, potting, &c., and which acts as a storm door to the house itself.

The total cost of the whole structure is as follows:

Sash, complete, ...	$ 54·00
Lumber, ...	40·00
Flue, complete, ...	25·00
Nails, pulleys, &c., ...	3·50
Entire cost, ...	$122·50

Here, then, we have a house fifty feet long and nine wide, for the small sum of $122.50. Who would be without such a luxury, when it can be had so cheaply, furnishing flowers for winter and the best of places for bringing forward tomatoes, egg plants, peppers, cauliflowers, lettuce, cucumbers, melons, &c., for planting in the kitchen garden in the spring. Edgar Sanders.

Two Hours on an English Farm.

When in England during the summer of 1855, the writer visited the farm of Charles Lawrence, Esq., situated in the town of Cirencester, Gloucestershire.

Mr. Lawrence is a lawyer by profession, but cultivates 260 acres of land in a most superior and systematic manner. The whole neighborhood of Cirencester, with the single exception of his farm, is owned by Lord Bathurst and another landlord, in whose families the soil has been held for centuries. This part of Gloucestershire is essentially a rural district. Here, in fact, are the high grounds known as the Cotswolds, the home of the celebrated race of sheep of that name. The town of Cirencester is as rural as one can imagine. The only building in it of any architectural pretensions that I remember, is the fine old cathedral. The dwellings are low and seem mostly to be the homes of agricultural laborers.

Not 40 rods from his office in the town, is situated the mansion of Mr. Lawrence. It has the usual English accompaniments of lawn and shrubbery. I accepted an invitation to partake of an afternoon dinner, and then mine host was ready to show me his farm. It lies on a gentle swell of ground, so that most of the fields have an inclined surface. The soil is mostly light and calcareous, but is not uniform—some parts are clayey.

Tile drains have been laid in some parts, four feet in depth, but Mr. Lawrence considered that much of his soil was naturally dry enough.

The farm is under a four years' rotation, viz: 1st, root crops, 2d, barley, 3d, seeds, (grass, clover, rape or lucerne,) 4th, wheat.

The soil is prepared at the beginning of the rotation for root crops, by turning under stable manure in the autumn to the depth of 5 or 6 inches. In the spring the root crops are drilled in with a peculiar manure, which is of a powdery character, admitting of distribution with the seed. It is composed of pig and privy manure mixed with ashes and superphosphate of lime. Mr. Lawrence conducted me to a sort of excavation made in the side of a knoll, the only rough place on the farm, where he caused all the weeds from the fences and roadsides, all dead leaves and vegetable litter, to be collected, and burned or charred. So much of these ashes is mixed with the pig or privy manure, as to dry the latter and make it manageable, and then to every acre 30 bushels of this compost, mixed with 3 cwt. of superphosphate (home-made from bones) are applied. The field thus prepared has no more manure drawn upon it for 4 years; the second and third years it is put to barley and fodder, with only the usual preparation of tillage. The last year of the rotation preparatory to wheat, it is plowed nine inches deep, and subsoiled with Read's subsoil plow. I should correct the statement that no manure is put on after the first year. Mr. Lawrence makes it a rule to sow one cwt. of salt per acre with every white crop (wheat and barley). He considers it to strengthen the straw.

In this way every year, one-fourth of the farm is manured, and grows root crops; another fourth yields barley; another fourth is in clover or other fodder; and the remaining fourth is subsoiled and put to wheat.

Now for the stock of the farm. Besides half a dozen horses, this consists of 25 head of cattle and 500 sheep, all of which are fattened, sold off, and replaced annually, as I understood. The cattle are fattened in boxes. These are pens 2 feet deep below the stable floor and 8 or 10 feet square, with suitable railing into which the beeve is turned at the commencement of fattening, and from which it then does not come out but to be sent to market. A feed-trough is provided which is raised from time to time as the filling up of the box makes needful.

The food of the boxed animal is made as follows:—Oil cake is steamed, and then (in a wooden box which holds enough for the 25 head,) it is mixed with chaff or fine cut straw, the two being put down in alternate layers until the box is full. The mass shortly ferments, and in a few hours the chaff or straw is perfectly reduced to a pulp. Then the whole is mixed together and served out. Water is supplied *ad libitum*.

In order to keep the animals cleanly and comfortable, and to prevent any loss of manure, they are daily littered with a small quantity of straw cut about one inch in length. This cut straw absorbs the liquid excrements so perfectly, and the weight of the animal packs the whole so closely, that the inmate of the box *always has a dry and comfortable bed and a pure air*, entirely unlike the ammonia-charged atmosphere of ordinary stables, as I was astonished to observe. I say a *small* quantity of cut straw was used as litter. This is true, i. e., the quantity employed is much smaller than would suffice were it uncut. The boxes are just large enough to be filled by the fattening of one animal. The manure that results is rich from the use of oil cake, is uniform in quality, and entirely free from long litter. It is not, however, ready for application. In the spring it is removed from the boxes and carried a few rods into an adjoining rod or lane, where it is made into a pile four or five feet high and wide, and several rods long, and covered with a coating of road scrapings. When a field is subsoiled numbers of small calcareous stones are thrown up, which are drawn upon the farm road. They are rapidly pulverised under the carts, and in wet weather the mud is collected for covering the manure heaps. It shortly forms over them a solid, quite impervious coating about one inch thick, completely protecting the manure from water and air. Within, the heap ferments, no perceptible loss occurs by escape of ammonia, and the whole is converted into a uniform fine black mass of excellent manure, rich in fertilizing ingredients, and, as it would seem, in the best condition for exerting a beneficial action. It is this manure that is plowed in before the root crops are sowed.

Mr. Lawrence said to me with great emphasis, "the secret of farming is a good flock of sheep." I had only a distant view of his 500 sheep, but from his lips gained an idea of the systematic manner in which they are managed.

They are kept a greater part of the year upon the fields, and to furnish them constantly with green food, a variety of crops, viz: turnips, ruta bagas, mangold-wurzel, rape, lucerns and clover are cultivated, and so chosen and sown, that each one is consumed while in season, and before it passes its prime, and is then succeeded by another. For example—in the early winter turnips are fed, while towards spring, when they become stringy and less nutritious, the mangold wurzel comes into use; and Mr. Lawrence thinks that at that season they make better feed than at any other. This change of food cannot but have the best effects on the health of the stock. The sheep are confined by hurdles for several days to a small patch of the field, which they eat off completely, and also manure thoroughly; then they are put upon another plot, and so on until the whole plot is consumed. The sheep are raised for their flesh mainly, and not for wool. The barns and sheds are of plain, but substantial and convenient construction. In one building is a steam engine used for driving a thrasher and cleaner, flour mill, straw and root cutters, and an oil-cake crusher. The thrasher is a huge and complicated machine, as are all the English thrashers, but it does its work admirably, delivering into four separate bags, grass seeds, tail, good corn and extra, respectively. The arrangements of the barns and stables is admirable.

The implement-shed transported to this country, would form a very respectable museum. The variety of plows, the rollers, the scarifiers, grubbers, seed-drills, clod-crushers, &c., &c., used on this farm of 260 acres, cost their proprietor a sum that would seem fabulous to many an American farmer; but good implements, and enough of them, is the English rule, and it is the true one.

At the time of my visit, Aug. 20th, the crops on the ground, wheat, barley, cabbages, turnips (2d crops), and ruta bagas, &c., bore the most healthy and luxuriant look. The root crops were wonderfully uniform and well set; not a vacancy could be seen in a whole field.

I have thus briefly sketched the chief points in Mr. Lawrence's plan of farming, and although the outline lacks completeness and connection, still I trust it will exhibit what is meant by *system* in agriculture, and show how much one may see in two hours on an English farm. S. W. Johnson. *Nov.*, 1856.

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Periods of Gestation and Incubation.

Among those engaged in the rearing of domestic animals, there seems to exist much uncertainty and doubt, and in some instances entire ignorance in relation to the period of gestation in those animals—yet a little careful observation in that matter will enable them to know those periods sufficiently near for all practical purposes, although in this, as in most other things, there will be exceptions to the general rule. It appears to be the general opinion among stock raisers, that in cases where the periods of gestation are longest the product will be a male: but this has not been the case among my own stock, the longest periods of gestation as often producing females as males. This thing however, I have noticed, that young animals do not embrace as long periods as old ones.

The following table condensed from the Farmers' Encyclopedia, I think will be found to approximate as near a correct standard as any that has been given.

The period of gestation in the Mare 347 days—the Cow 284—Ewe—154—Sow 115—Goat 156—Ass 380—Rabbit 28.

The period of incubation in the Turkey 26 days—Hen 21—Duck 30—Goose 30—Pigeon 18.

This is given as the average length of the periods in the different animals mentioned. It has been observed that the larger quadrupeds vary more in the gestatory term than the smaller ones—the smaller ones varying but little from the given time.

From observations made by M. Teissier of Paris in 582 mares, which copulated but once, the shortest period was 287 days, and the longest 419; making the extraordinary difference of 132 days, and of 89 days beyond the usual term of 11 months.

From some carefully collected and very extensive notes made by Lord Spencer of England, on the periods of gestation of 764 cows, it resulted that the shortest period of gestation where a live calf was produced was 220 days, and the longest 313 days—but he was not able to rear a calf produced at an earlier period than 242 days. From the result of his experiments it appears that 314 cows calved before the 284th day, and 310 calved after the 285th; so that the probable period of gestation is to be considered 284 or 285 days.

From experiments made by M. Teissier on the gestation of cows, the following results were obtained. 24 calved between the 240th and 270th day, the mean time being 259½ days. 544 calved between the 270th and 299th day, the mean time being 282 days. 10 calved between the 299th and 321st day, the mean time being 303 days.

It appears from the above mentioned experiments, that from 40 to 41 weeks is the usual period of gestation in the cow; that a calf produced at an earlier period than 260 days is premature, and any period of gestation exceeding 300 days irregular.

Within a few years two cases have occurred in my neighborhood at variance with this rule. One was in which the period of gestation in a cow extended to 312 days—in the other cow the period was only 250 days. In both instances the product was a heifer calf, and they were both fully matured, perfect calves; also in both cases the cows did well after parturition and gave their usual quantity of milk. One of these cows calved in March, the other in June.

It will be noticed that M. Tiessier's observations of the periods of gestation in the mare were made when the mare copulated with the horse but once. This would seem to imply that in cases where the mare copulated more than once, there might be some uncertainty about the period of gestation; how this may be I am unable to say; perhaps others who have had more experience in the matter can determine. I will mention one circumstance in respect to this subject, as regards the cow. Three years since I had five cows served by a bull which was kept some two miles from me—two of these cows were served the second time—one three the other four weeks from the time of the first service. The cows both calved just 284 days from the time of the first copulation with the bull. Now the question I propose is this. In the case of these cows, did conception take place at the first or second copulation? This question I leave for others to answer. C. T. Alvord. *Wilmington, Vt.*

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Underdraining with Stone.

Messrs. Editors—Having noticed in the Cultivator for Nov., 1856, an inquiry from Lucius Griswold of Milton, Ct., concerning underdraining with stone, I will say, if my experience will prove of any benefit to Mr. G. or any other farmer, he is welcome to it, provided you consider the information I give worth publishing.

My experience in that line is of seventeen years practice. In 1839 I ditched around about four acres of the most perfect bog swamp I ever saw. The ditch was from two and a half to four feet deep, according to the ground through which it passed. It was dug as narrow as it could be and let the men use the pick and long handle shovel. This ditch surrounded the swamp, keeping mostly in ground dry on the surface; still the outlet went through deep muck. I filled from fourteen to eighteen inches with stone taken from the four fields about the swamp, clearing them of surface stone completely. Through this muck bed where the ditch was compelled to run, it was necessary to place old boards at the sides and bottom, making a sort of rude trough in which the stone were placed and bogs thrown on them. The stone were all slightly covered with either straw, turf, or fine shavings, (which I consider best,) before the ditch was filled: then with a plow the work was soon finished by turning in the dirt taken from it.

After its completion, there were drawn from the swamp 128 large cart loads of bogs that were counted, and after that the boys said they thought they drew as many more of which they lost account, but all done in the same season. The first crop raised on it was buckwheat, and since that time up to the present day, that swamp has been planted, sown, pastured or mown, as other dry land on the farm, the water from the outlet running freely and steadily ever since the work was finished, without any intermission.

At different times since 1839 I have underdrained wet land, (surrounding it in almost every instance,) always using small stone, taking some care in placing the bottom course; after that throwing them in promiscuously, and never yet have failed of reclaiming the land to my entire satisfaction.

I have probably about 16 acres of land trippled in value by this method.

I forgot to mention that I failed in one instance, and that was for want of sufficient fall in the outlet. Cornelius Du Bois. *Poughkeepsie, Dutchess Co., N. Y.*

Connecticut State Fair.

Messrs. Eds —Our 3d annual Fair came off at New Haven last week. The last day for entering articles was on Monday, and on Tuesday the grounds were open only to members, and on Wednesday were thrown open to the public.

The location selected by the Society, was all that could have been desired, being less than a mile from the Rail-Road Station, and near the village of East Haven. About 30 acres were enclosed with a substantial fence, and with all the arrangements on the grounds, were well planned—temporary buildings being erected for the mechanical, manufacturing and fine arts departments, and for the others, tents. In the mechanical rooms was an engine with sufficient shafting to propel all the implements desired. The track for the exhibition of horses was a half mile in length, and I must say that I never saw at a *Fair*, so perfect a course—almost wholly level, and in prime order—not a stone, however small, allowed.

As regards the articles entered for exhibition,—the list of horses was quite numerous—over 400 entries having been made on the books of the Society, and in this department it was conceded that the show was very complete, not only as regards numbers, but in the actual worth and appearance of the animals, and, without boasting, allow me just to say that if any neighboring State of the size of Connecticut, wishes to take the palm as regards the number of good roadsters or horses of all work, why all is—just let them try.

As regards the cattle, though there were some choice animals—for instance, Messrs. Hurlbut's Devon Bull, and Geo. C. Hitchcock's noble Durham, and a few others—yet taken as a whole the show was in this respect somewhat inferior to former ones—the entries numbering about 250. The same remarks would apply to the swine,—not a single specimen of the Berkshires being on the ground. There were a few choice Suffolks however. A fine boar of this breed was exhibited by W. L. Bradley of West Meriden.

The sheep were well represented, by Messrs. Gold and Hart of Cornwall, Giles of Woodstock, Hopson of Kent, and Whiting of Torrington.

In the vegetable department there were as usual some mammoth specimens of the squash family—the steward of the Deaf and Dumb Asylum at Hartford showing six—two of which were marked 181 and 166 pounds respectively.

The horticultural show was very fino indeed. The collection of pears and grapes exceeding anything of the kind ever brought together in our State. Beautiful specimens of the former were shown by C. B. Lines, E. E. Clark, Chas. Beers, G Cornwall, and John E. Wylie. Some luscious specimens of the "Columbia" by the latter gentleman.

Peaches were exhibited by P. H. Ashton, L. A. Benham and C. M. Beobe, all of which were worthy of especial notice.

Grapes were shown by Gen. Jas. Case of Canton. H N. Reston of Fair Haven, Rev Jos. Eldridge of Norfolk, Jas. Craig, C. B. Lines, O. F. Winchester, C. S. Matby, (2 plates very fine,)—1 species styled "Alleppo" by Mr. E C. Reed, which looked specially tempting. Some choice "Victoria Hamburg" and "Muscat St. Alexandrias" were shown by Mr. H. Burr.

Fine Cabbages were shown by O. Brown, West-Haven—Carrots by J G. North, New-Haven—a very fine collection of garden vegetables were shown by A. Holford, gardener to E. C. Reed of New-Haven.

In the department devoted to Agricultural Implements was a one horse mowing machine, manufactured by Messrs. Colborn, Ansonia, Ct—price $60, which attracted a good deal of attention—Delano's independent tooth horse rake, especially adapted for uneven ground—two or three grain mills—Mr. D. W. Share of Hamden with his horse hoes, patent harrows, &c, and a new corn planter, with which he planted (on the Fair Grounds) corn—put plaster *in* the hill, and planted beans between the corn, all at one operation! A recently patented corn-sheller, made in Hartford, into which the corn is dropped sideways instead of end first, was shown—also a potato digger, manufactured in Manchester.

Taking it as a whole, I must say that the Fair was highly successful, and must have proved satisfactory to all concerned—the told receipts not varying much from $10,000.

And just allow me to say that you of the Empire State must look well to your laurels won in the department of Agriculture, for the old Nutmeg State is just finding out that she has within her domains rich and fertile lands, which only need enterprise connected with skill, to place her among the foremost States of the Union.

Removal of Plants in Winter.

Messrs. Editors — Can I ask a few questions through your Cultivator?

Can flower roots, bulbous or otherwise, be taken up in the fall, and put up in such a way as to carry from one State to another in mid-winter, without injury, and how can it be done?

Which would be the better way of carrying small fruit, by cuttings or roots?

Can roses be carried in the same way? A Lover of Good Things. *Amsterdam, N. Y.*

So much depends on the relative hardiness and tenacity of life of the plants wished to be removed under the conditions named, that it is exceedingly difficult to advise without knowing the particular kinds.

As a general rule with all those herbaceous plants with bulbous or fleshy roots, as Pæonias, Dielytra, &c., as well as the true bulbs, as Narcissus, &c., there will be no difficulty. Just before hard weather sets in, take them up out of the ground and stow away in a cool dark cellar, till required to remove; then pack them well in boxes with sawdust, where they had better remain, stowed away in a cool place till spring opens.

Plants with more or less foliage and small roots, as Phlox, Sweet William, &c., will be more difficult. Taken up as above and laid close in boxes, with a little just moist mold with them, and placed in a very cool cellar, they might hold out until the spring, if kept from too severe a freezing in their journey.

Cuttings of the small fruits, can be readily preserved with their ends in moist soil in a cellar, or packed in sand nearly dry; the bushes can also be kept the same way with care in putting by. E. S.

Brown Bread and Cookies.

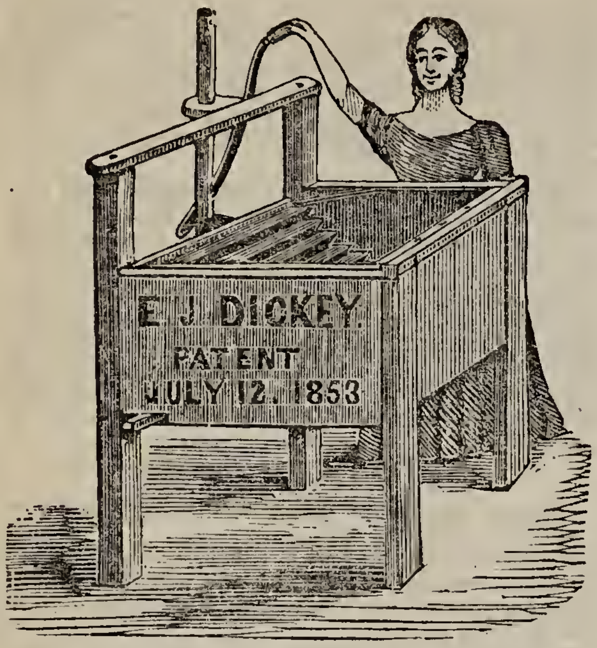
Messrs. Editors—Below I send you two receipts which we think are worthy a place in your paper Having tried them for some time we can pronounce them superior:

Receipt for Brown Bread.—Take of Indian meal and canaille, each 3½ tea-cupsful, or 3 of Indian meal and 4 of unbolted wheat—1 qt. sour milk—half a teacupful molasses—1 egg—1 tea-spoonful saleratus—then steam three hours and bake half an hour.

Cookies—Extra —Take one pound white sugar—1 pt. sour cream—half an ounce hartshorn—mix very hard, and roll them. Some add a little salt and nutmeg. Syo.

Ham.

A good way of keeping bacon through the summer, is to take it as soon as brought in from the smoke house, cut it up in slices and fry till done about half as much as you would for the table; then pack tightly in the lard that fries out of it, but if that is not sufficient, lard must be melted and poured on sufficient to cover it else it will mould. This is a very convenient and safe mode of preserving ham, much superior to packing in lard without first frying. E E.



Dickey's American Butter Worker.

Messrs. Tucker & Son—You politely requested of me a cut and description of my Butter Worker, which I exhibited at the State Fair at Watertown, and I cheerfully comply with your request, feeling assured that the readers of your valuable periodicals will appreciate a machine, whose merits as a great labor-saving machine, have long been established beyond a doubt.

The cut gives an imperfect idea of the machine—which consists of a square box about two feet long, one foot and nine inches wide, and one foot and one inch deep, standing on legs. This is the largest size, calculated to work from 12 to 26 pounds of butter at one working. On the inside of the box, on one side, is a system of wooden knives for gashing the butter. Directly below these knives is a groove across the bottom of the worker, and little holes in this groove through which the buttermilk escapes into an apartment between the first and second bottom, and is received in a dish under the worker. A corrugated or sharp ridged presser is suspended near one side of the box, on the inside, which is made to move freely towards and from the knives, by means of a compound lever. The construction is such that the leverage and mechanical advantage increase as the handle or working lever is brought down, thus thrusting the presser toward the knives with an increased force. The presser stands inclined to an angle of about 40 degrees, so that the ridges appear like seats rising one above another.

The butter is put into the machine and pressed against the knives. When the presser is withdrawn, as the butter stands on a very narrow base, it falls back towards the presser, when the presser and knives gash it in a different place every time the lever is brought down. The buttermilk flows readily into these gashes made in the butter by the knives, and when these gashes are closed by pressing, the buttermilk escapes. The salt may be worked in at the same time, very evenly; and if it is desirable to wash the butter, (which we do not approve) a stream of water may be kept pouring on the butter during the process of working, which will all flow readily into the apartment below the butter, and be received in a vessel without one drop of slop.

WHAT IS THE PHILOSOPHY OF WORKING BUTTER?

After churning cream until the butter has come, and has been gathered into one clump, the whole mass is full of large and small globules of buttermilk. These must be got out in order to preserve the butter. Were it not for these globules butter would need no working. Submitting a clump of butter to a very powerful press will by no means force out the buttermilk, even if the butter be hard or very soft, or only pliable. The less butter can be handled, either by pressing, working, kneading or gathering, and get out the buttermilk, the better the butter will be; and after all the buttermilk has been pressed out any more working is unnecessary, and often very injurious to the good flavor and fine texture of butter. Butter is often spoiled by being worked too much, and still the buttermilk may not all be extracted; and the best of butter will soon become salvy, sticky, and almost entirely destitute of any good flavor, by being worked a few minutes too long.

Since the grand object of working butter is to get out the buttermilk, common-sense philosophy teaches us to make deep and long gashes in the mass to be worked, into which gashes the buttermilk readily flows; and then, by closing these gashes, as it is very difficult to force these globules of buttermilk into the butter again, they quickly flow away. Gashing butter and then pressing the mass sufficiently hard to close these gashes, is the only correct and philosophical principle of working butter. Working butter with a ladle is the true and philosophical mode of working it, but is a very laborious operation, and requires the expenditure of a great amount of unnecessary strength, because with the ladle we are not able to avail ourselves of any mechanical advantage, neither in gashing or pressing it. Working butter by passing a roller over it is by no means a good and economical way of getting out the buttermilk—and it will most assuredly injure the flavor of the butter before the buttermilk can be got out. Working butter with the bare hands is the most *laborious*, *injurious* and *ridiculous* mode in all butterdom; and those who practice it always complain most bitterly of the very great expenditure of strength in working only a little mass. By melting butter only a little, we destroy its flavor and render it adhesive and salvy—and as the hands are warm enough to melt butter, it cannot be handled without melting more or less of it. And furthermore, the hands and fingers are very inefficient and impotent instruments to press or squeeze anything with—because in them we cannot avail ourselves of any mechanical advantage. A far more economical way would be, where the hands are used, to mount on to it with the bare feet. It would be no more sordid or ridiculous than working it with the hands. Passing butter between corrugated or fluted rollers, by which the butter is crushed, mashed, or flattened out, will certainly injure the flavor of butter, before the buttermilk can be got out; and if a dairy-maid can make good butter by working it with her hands, or feet, or rolling press, we may rest assured that with a proper butter worker, she would be able to make butter of a very superior quality. With these remarks, we will revert to the

EXCELLENCE AND ADVANTAGES OF DICKEY'S WORKER,

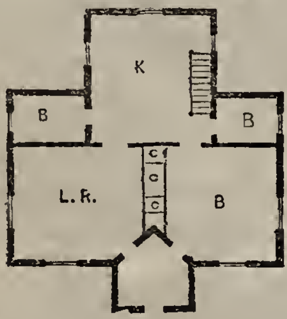
when compared with the numerous butter workers now in use.

This machine works butter on the ladle principle—the most correct and philosophical mode of working—gashing and pressing the whole mass, alternately. It works all that is put into the worker at once, very evenly. One portion cannot be worked, while another portion remains unworked. When butter is very hard and unpliable, and cannot be worked with a ladle, nor with any other machine, within our knowledge, it can be readily worked with this machine, without warming it. Another very important advantage of this machine is, the rapidity with which it works the butter. A female of ordinary strength, who is accustomed to spend from two to three hours working twenty or twenty-five lbs. of butter, taxing all her strength (and every butter-maker will testify that working butter is a very laborious task), can work and salt that number of pounds, most neatly and thoroughly, in five minutes. We know this to be the truth; and what we have said in relation to this butter worker, we have penned in all honesty and conscientiousness. Having used one of these workers, during the past season, in our own small dairy, we know it to be a very great labor saving machine, and a most complete remedy for a female's lame hands, arms and shoulders, which have been made so by working butter.

Any further information in relation to this machine, may be obtained of the patentee, E. Y. Dickey, Hopewell-Cotton Works, Chester Co., Penn., or by addressing the subscriber, S. Edwards Todd. *Lake Ridge, Tompkins Co., N. Y.*

Plan of a Small House.

Our correspondent, J. M. Wade, has sent us the accompanying plan of a house which he proposes to erect on a cellar where the dwelling was formerly burned down. The plan is similar to that on p. 28 of the Rural Register for 1855, with some alterations which give the two principal rooms a square instead of an octagonal form, by placing the closets between them and not at the corners; and also by flanking the kitchen with two small bedrooms.



In answer to the question of our correspondent, we should say that it will be cheaper to build according to his plan, than to alter the present cellar walls to suit that in the Register. We cannot refer him to an architect in his own neighborhood to make the working drawings, but as the plan and elevation are already given, any intelligent carpenter could undoubtedly perform the work, assisted by the suggestions contained in various parts of "Downing's Country Houses."

On Superphosphate of Lime.

WRITTEN FOR THE CO. GENT. BY SAMUEL W. JOHNSON.

The enormous quantities of material that have been sold under the name of superphosphate of lime, within a few years, with a prospect for increased sales in the future, prove that the use of a genuine article is remunerative, and make all contributions to our knowledge of this subject of exceeding interest.

In the Eastern States, where the soil is poor and the market good, this and kindred artificial fertilizers, have now become almost indispensable to many of our best farmers.

In 1852, I published in this paper, the analyses of two superphosphates, then the only ones sold in this country, so far as I knew. Both were of a quality not inferior to good samples made in England, the birthplace of this manufacture.

Since 1852, the business of making artificial manures has increased to a great degree. There are now in market in our Eastern cities, eight brands of superphosphate alone, which I can recal without looking up the advertisements. Last summer seventeen analyses of superphosphates, on eight different samples from five manufactories, were made in the Yale Analytical Laboratory, either under my eye or by my own hands. The results, published in detail in "*The Homestead*" of July 17, demonstrate that of these five brands, only two, viz: "Deburg's No. 1, Ammoniated," and "Coe's Improved," were manufactured with any respectable combination of knowledge and honesty, two indispensable requisites for this kind of business. And these manures contained respectively but 2½ and 4¼ per cent. of soluble phosphoric acid. Hildreth's Superphosphate (New-York,) contained but 5½ per cent. of phosphoric acid, and of this none was soluble!

In face of these facts, he is a bold man who now buys superphosphate of lime. Farmers have communicated to me their experience of the past summer, confirming the accuracy of the deductions I have drawn from my analyses, and recently I have had application for advice in the home manufacture of this fertilizer.

The most advantageous method of preparation that has come under my notice, appears to be the following, by Dr. Alexander Mueller, Chemist to the Ag. Experiment Station at Chemnitz, in Saxony. It refers to the article made from ground unburned bones. I translate the essential part of the account from the *Landwirth-schaftliches Centralblatt* for June, 1856.

After remarking that, in the ordinary method, when the ground bones are directly treated with acid, the action of the acid is chiefly spent upon the finest parts of the bone meal which least need solution or decomposition, and scarcely affects the coarser portions—he proceeds to describe his process which has a reverse result, as follows:

"The bone-meal is passed through two sieves so as to divide it into three portions, one consisting of particles less than one-twentieth of an inch, another of grains less than one-tenth of an inch, and a third of fragments over one-tenth of an inch in diameter.

The bone-meal should be so fine that not more than 40 per cent. remains upon the coarsest sieve.

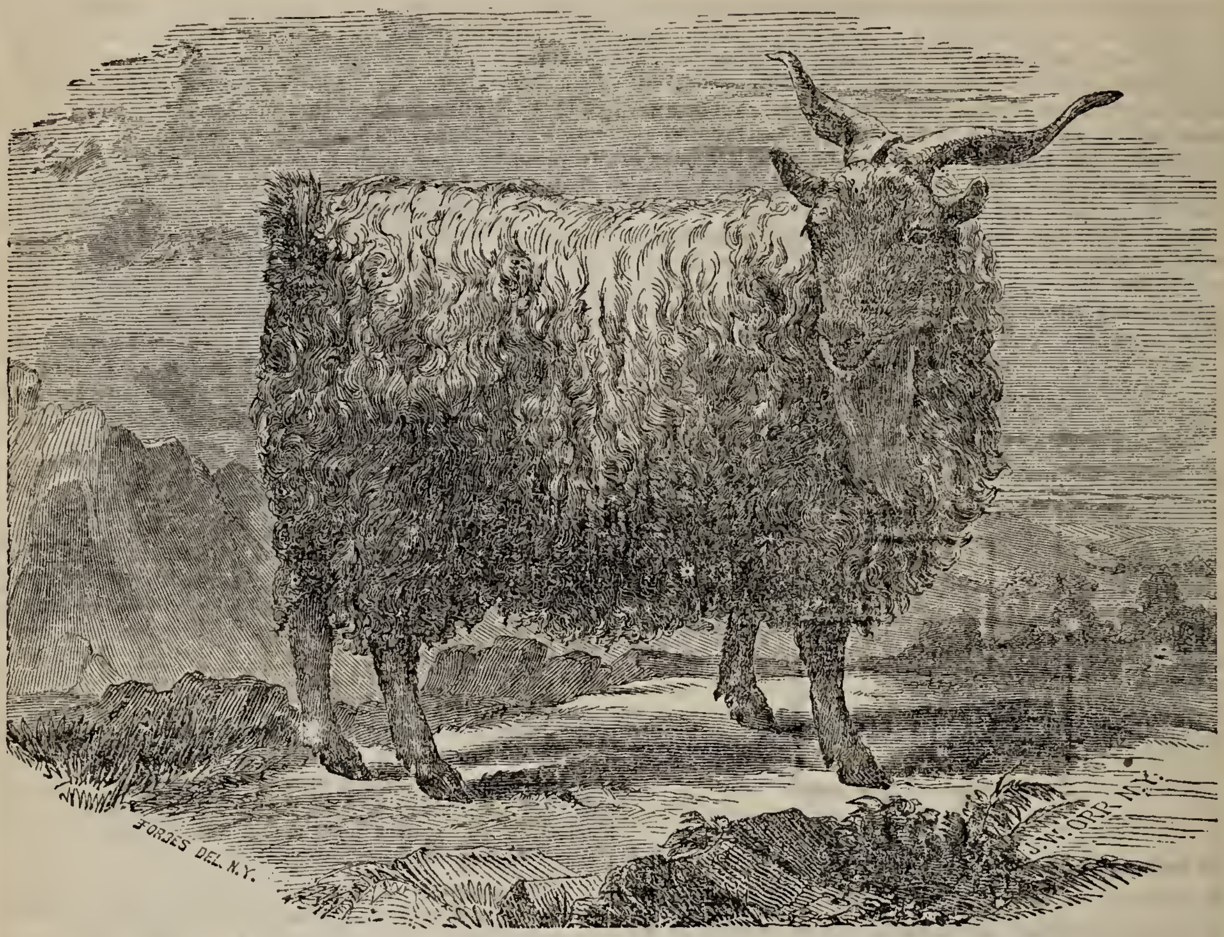
Of 100 lbs. of meal, the coarsest portion is now well mixed with 25 lbs. of oil of vitriol, and after a little time 12 to 13 lbs. (6 qts.) of water is gradually added (a quart at a time) the whole being stirred. The heat thus produced greatly facilitates the solution. The mixture is allowed to stand 24 hours, after which interval, the fragments of bone will be found so soft that they can be crushed in the fingers. The meal of medium fineness is now thoroughly mixed with the mass, and the whole allowed to stand again two or three days; finally the finest meal is stirred in, which brings the preparation to a convenient state of dryness, or it becomes dry by a short exposure to the air, if thinly spread out.

By acting on 100 lbs. of bone-meal in this manner, with 25 lbs. of oil of vitriol and 13 lbs. of water, about 130 lbs. of superphosphate are produced, which is indeed dearer than an equal weight of the common preparation; but is equal in effect to 200 to 300 lbs. of the latter, and is therefore cheaper, to say nothing of easier transportation.

The superphosphate thus made is a light gray, crumbly or powdery mass; in dry air it does not become moist in the slightest degree; to the taste it is not perceptibly sour, and therefore can be conveniently preserved in sacks.

The advantages of this plan of treating bone-meal over the common method are:

1. The acid acts most powerfully on those parts which are most difficultly soluble.
2. Therefore a much smaller quantity of acid is necessary, and thus the loss occasioned by the conversion of so much acid into comparatively worthless plaster is avoided.
3. The greater concentration of manure cheapens transportation." *Yale Analytical Laboratory, Sept. 27, 1856.*



Male Cashmere Goat.

The property of Richard Peters, of Atlanta, Georgia, imported during the year 1849, from Turkey in Asia, by J. B. Davis, M. D., of South Carolina. Live weight, 155 lbs; weight of yearly fleece, 7 lbs.

Preventing Mice from Injuring Trees.

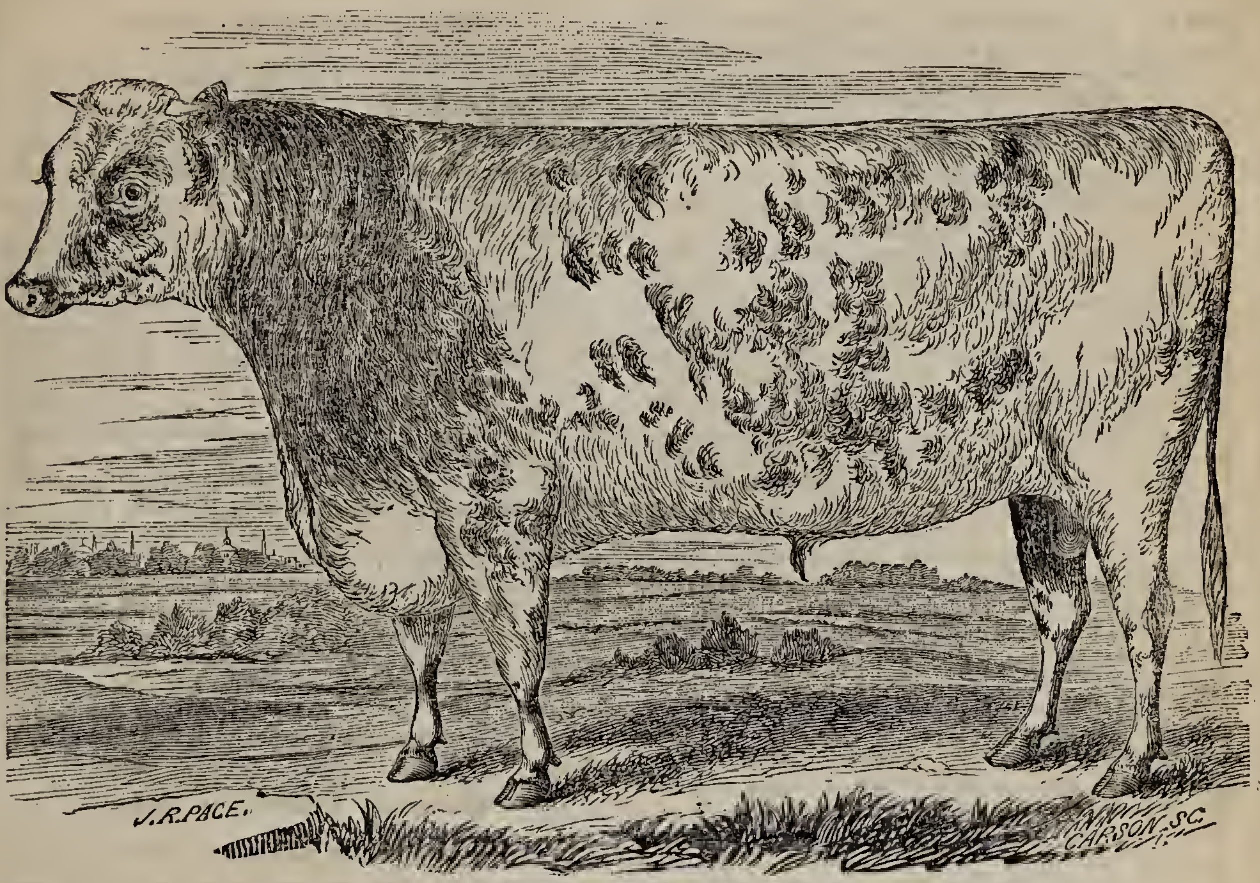
Messrs. Editors—I have noticed two articles in the 13th number, 206th page, of the present volume of the Country Gentleman, on the subject of preventing mice from injuring trees. One advising or rather giving as a preventive, melted tar applied with a swab late in the fall; the other, one pound of tallow to two quarts of common tar, melted and mixed thoroughly, and applied when warm. Now I do not doubt that either of these applications will prevent mice from gnawing where the tar is, but I dare not apply either to my trees. It is but a few years since a neighbor of mine, who had a fine lot of young trees, and who had been informed of the tar application, advised with me as to the effect. I said to him that I would not risk it on my trees, but he concluded to apply it on his, and did so; the result was it kept off the mice, but to his great regret, the next season he found all dead where the application had been thoroughly applied. Now there may be some other cause for the dying of those trees, but it certainly appears to me that any application of the nature of tar or tallow, spread around and coating over the bark of trees for one foot or more, must in some measure be injurious to healthfulness.

I have been in the habit for several years, when I thought there was danger from the gnawing of mice, of banking up around my trees a cone from six to ten inches high, and have never to my recollection lost one tree that I so fixed; last fall I neglected to bank up a number of my trees, for the reason the land seemed to be so clean from all material for mice to harbor in, and the consequence was that I lost a number of valuable pear trees. P. H. W. *Mohawk, N. Y.*

Underdraining with Stone.

I had twenty acres of land which was so very wet that it could be used only for pasture land. I was told by the person I bought it of, that it had been in this wet state for thirty years to his knowledge, and it could never be drained. I bought it with the intention of draining it. In the summer of 1833 I ditched it with over 1000 rods of ditch; this ditch was only two and a half feet deep, eighteen inches on the bottom, slanting down. This ditch I filled with small stone to the depth of 15 inches, then covered the stone with a light covering of pine shavings so as to prevent the earth from running down between the stones and thereby filling up the drain with dirt, which is the cause of all the trouble in draining in this way. Then I filled the ditch with fifteen inches of earth, leaving twelve inches for the plow, and three inches covering on the stone and shavings, which will never be disturbed, and the ditch will remain in good order always. This completely drained the lot, so that in the fall of 1834 it was plowed, and in the spring of 1835 it was plowed again and sowed to oats, and it produced forty bushels to the acre, and has been in cultivation ever since. The water runs out as freely now as it did the day it was finished, twenty-three years ago; from all appearance it will stand good 100 years longer.

This manner of draining I learned by reading the *Genesee Farmer*, published by Luther Tucker in Rochester, in 1831. J. B. D. *Auburn, Oct.* 1856.


J.R.PAGE.
CARSON SC.

Durham Bull Calf Chicago at Eleven Months Old.

The eleventh volume of Coate's English Herd Book describes him as roan, born 17th December, 1854, and the property of the Hon. John Wentworth of Chicago.

He was sired by the imported prize bull Balco (9,918) and is at the farm of the Illinois Breeding Association, at Summit, Cook Co. Dam Fancy by Meteor, (11,811,) Daisy by President (4,750,) Active by Washington (1,566,) Panzy by Blaize, (76,)—by Blythe Comet (85,)—by Prince (521,)—by Patriot (486.)

The Maryland State Fair.

(*Correspondence of the Country Gentleman*)

Baltimore, Oct. 23, 1856.

Editors Country Gentleman—I arrived yesterday, and proceeded to the show grounds of the Maryland State Ag. Society. The weather was all that could be desired, and a large concourse of people in attendance. The butchers of the city were just emerging from the grounds as I arrived. They numbered about 250, and made a fine display—but what particular part of the exhibition they filled, I did not ascertain, but in the evening at the Society's meeting, one of the committees reported that they were prevented from discharging in full their duties by the arrival of the cavalcade of butchers.

I examined the show yesterday and to-day, and found a large number of cattle upon the grounds—Devons, Ayrshires, Durhams, Herefords, Alderneys, Holsteins, grades, &c. The show of Durhams less than when I last attended the show here; and from conversation I had with several gentlemen, I think the Devons and Ayrshires are supplying the place of the Durhams to some extent.

The show of Devons and Ayrshires was quite large, and some very fine animals were exhibited. Most of the animals shown were in ordinaty condition. Devon bull "Uncas," from Mr. Wainwright's stock, was on the grounds. The first premium, I think, was awarded him at Philadelphia in his class, and also here, and he is certainly a very promising animal. He is owned by J. Howard McHenry of Baltimore county. An imported cow, "Red Rose," from Mr. Quartley's herd, appeared to me a very good animal; she belongs to Mr. McHenry.

Mr. Clement Hill showed about 20 head, mostly Durhams. C. B. Calvert had a large show of Ayrshires, Alderneys, and Durhams, and there were several other exhibitors in the various classes. Mr. Merriman had quite a variety of stock—among them a Hereford bull and heifer purchased at our Fair at Watertown, the stock of Mr. Bowen of Orleans county.

The show of sheep and swine was excellent. The numbers not as large as at some former exhibitions, but of very fine quality. Col. Ware's stock of Virginia Cotswolds; imported and of his own breeding, were of a very high character. A few Shanghai sheep were shown, but I am not aware of any peculiar advantage to be derived from their introduction into this country. The swine, mostly of Chester and Berkshire breeds, was very good. Poultry, considerable variety—some rare birds by one exhibitor who had a large collection.

The Horse ring, designed as the great centre of attraction, was occupied by a variety of horses—some fast, and some not very fast—but taken as a whole not very remarkable. Some very good stallions of the Black Hawk variety. To-day a mile race was to come off on the course.

The Implement Department was very well represented. McCormick's, Hussey's, Atkin's, Wood's, Manny's, and Owen Dorsey's Patent Reaper and Raker, having three rakes fixed on a point worked by the machines and which removes the grain. Hussey has also a rake on his reaper for removing the grain. Ketchum's mower was also on the ground, and the one own was one of the finest made implements I have seen. On this a small wheel is placed about the center of the cutting blades, which steadies it, and renders the machine much easier in moving from place to place. A great variety of plows, threshers, portable grist-mills, &c., were on hand.

The Vegetable show was excellent. Domestic articles rather light, except in the *bread* and *ham* line—the show excellent both in quantity and quality.

A very clever portable self-supporting fence, costing from 64 to 75 cents per 12 feet panel—can be taken apart and removed panel by panel if desired. McIlroy is the patentee. His residence I did not learn, but presume the fence is made in Baltimore. It appeared to me an excellent fence. No parts required to be set in ground. At the ends of each panel there are two narrow boards running from the top in the form of a triangle, and affixed to a piece of scantling or plank about 18 inches or 2 feet long which rests upon the ground and steadies the fence. The panels are held together by passing the top rail to which the slats are affixed, of one panel through that of another, and a pin is inserted, making the fence very strong apparently, and not liable to get out of order.

There were a great number of show booths on the grounds, which detracted very much from the agricultural character of the exhibition. I regretted to see liquor stands dispersed around the grounds. The result of these was apparent on Wednesday, in a very severe collision which took place, and in the melee a pistol or gun was discharged, and the charge grazed the arm of the marshal. There was too much evidence upon the grounds that the liquor stands were doing up their work. I heard many gentlemen regretting this, and the hope was expressed that it would be remedied hereafter.

I went this afternoon with G. W. Dobbin, Esq., and visited his farm, eight miles from the city, on the Washington railroad, near the Relay House. It consists of 200 acres; his house in the midst of the forest, with a beautiful lawn opened in front of it, from which his place derives its name, "The Lawn." Mr. Dobbin is bringing up his farm by judicious tillage to a very satisfactory condition. His principal crops are corn and wheat, and grass. I saw his fine Devons that won the prize at Philadelphia. They are remarkably fine animals, of great size for Devons, and first rate milking qualities. They were from Geo. Patterson's herd, purchased by Mr. Dobbin but a short time before the fair at Philadelphia, and were selected, I believe, by Mr Patterson as among the best of his herd. Much satisfaction was expressed by many gentlemen that the prize was awarded to Maryland in this class.

I met many friends here, and received every desirable information in relation to the show from Mr. Earle, the President, Mr. Sands, the Secretary, the Treasurer, Gen. Tilghman and M. T. Goldsborough of Talbot co., M. J. Merriman, Mr. McHenry, Hon. W. W. Bowie, G. W. Dobbin, Col. Ware of Virginia, A. Clement of Penn., and others. I took some notes of Mr. Dobbin's farm which I may write out. I leave this evening for Wilmington, Del, where I propose to visit Mr. A. Bidermann's farm near that town.

[We are much obliged to our correspondent for the above paper, and shall be very glad to receive the notes alluded to, of the remainder of his trip. Eds. Co. Gent.]

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A Large Wool Business.—The wool crop of Australia is said to be better than ever this year, notwithstanding the attention given to gold digging of late in that remarkable island. Some of the Australian sheep owners have been lately attending the sale of their clips in London, and there were men whose flocks numbered 60,000 head, giving a clip of 300,000 lbs of wool in the grease, which brought 15d—say 30 cents, being a value of $90,000 for a clip, of which half is profit. This is quite a business.

Buying Horses and Cows.

I was much pleased with the article of C. O. Perkins in the 14th No. of the Country Gentleman, on rearing and training colts, and especially with that part which related to *buying* and *selling* horses. I have had occasion to buy at different times a good many farm animals, and although I am a very moderate judge of the characteristics of fine animals, and none at all of indications of diseases and blemishes, yet I have generally made much better bargains or been less cheated and imposed upon than some of my acquaintances who have had far greater experience. If young farmers would know the secret of my success, they shall have it—it is, never to buy of any other person than of an honorable and honest man—one who would rather lose a few dollars than carry about with him the stigma of a sharper or swindler—and in all practicable cases to take only those which such an honorable man has raised himself, or has had long enough to know thoroughly. I always prefer to buy an animal raised on the farm where I find him—and I find it economical to give five dollars more for a cow that has not passed through different hands, which in other respects may be equal. Sometimes a very fair and *apparently* excellent bargain is offered me by a known swindler, but I always make it a rule to avoid him, and this saves me much trouble in the long run.

Senex.

Winegar's Automaton Gate.

In answer to inquiries, we can state that after two years' trial, this gate succeeds admirably; and that W. H. Chase of Union Springs, for whom the first complete gate was erected, informs us that for the two years it has been in constant operation, it has not cost anything for repairs.

C. Winegar, the inventor, has recently constructed another arrangement for opening and shutting gates, without alighting, in some respects superior to the automaton opener. It does not require the winding up of a weight, the movement being effected wholly by the hand on the lever in passing. It has these advantages over the other, that it is always ready without winding, and also if there should be a strong wind blowing, the force of the hand may be increased so as to compensate for the pressure of the wind. The gate requires but little practice to enable any one quickly to open it—we have seen it done without stopping the horse. We think it admirably adapted to a much used *farm* gate; but for an entrance gate to a mansion, used by everybody, we should prefer the automaton.

C. Winegar will send the *irons* for attaching to a to a common gate to render it an automaton, for five dollars; and for the new gate, for three dollars—his address is Union Springs, N. Y.

Pumpkin Pies.

Now that fruit is so much less plenty than usual, it will be necessary to make more use of tomatoes, pumpkins, &c., than formerly, and all of your readers may not be aware that the best method of preserving pumpkins for another summer's use is the following:—Wash a good ripe pumpkin clean, cut it up with the rind on, having of course removed the seeds, &c., stew and sift it as for pies, then spread it thin on earthen plates and set it in a warm place, the stove oven for instance, till nearly dry; then remove it to another plate and let it remain till dry as dried apple, then put it in a bag and hang it in a dry place; then all you have to do to make pies from it, is to put any quantity you wish into milk and let it soak over night, then add sugar, spice, &c., as for fresh stewed pumpkin. It will be found vastly easier than the old way of drying pumpkins raw. E. E.

The Horticulturist for November.

The Mangostan of India.

The last number of this interesting and valuable journal, contains a great deal of matter worthy of notice. The fine colored plate (of the colored edition,) presents quite a novelty, in a representation, drawn from nature, of the leaves, flowers and fruit of the world renowned *Mangostan* of India, the most delicious of all known fruits. This fruit, a native of Java, and other countries in that hot region, has recently been successfully grown and ripened in the hot houses of the Duke of Northumberland in England, and from these specimens the drawing was made. It is represented as globular, about two and a quarter inches in diameter, and in color a dark, rich chestnut brown, with some yellowish brown spots, and presenting altogether an exceedingly rich as well as unique appearance. We are informed that on removing the rind which is about the fourth of an inch in thickness, the pulp is found to have the whiteness and solidity of snow, with a refreshing, delicate, delicious flavor. The flavor of the English grown specimen, which we cannot suppose at all equal to those grown in India, is compared to that between a first rate peach and a good grape; but Dr. Abel, who enjoyed the opportunity of eating it at Batavia, in its native locality, says, "to define it by precise language would be difficult. After satisfying ourselves that it partook of the compound taste of the pine-apple and the peach, we were obliged to confess that it had many other equally good, but utterly inexpressible flavors. From its perfect wholesomeness it may be eaten in any quantity; and as it possesses no luscious qualities, it does not soon cloy the palate." There does not appear to be any probability that it can be raised to advantage, even in our hot-houses.

Culture of the Peach.

A valuable communication is given from Samuel T. Jones of Staten Island, N. Y., a most successful cultivator, the chief items of management in which are briefly the following: 1. Low and open pruning, commencing when the tree is young, by cutting out the top or central branches. 2. Preventing overbearing, both for the vigor and longevity of the tree, and for the size and quality of the fruit, by a free use of the knife late in winter or early in spring—shortening back the shoots and thus removing a portion of the fruit buds, and also removing any branches which become too long, allowing young shoots to grow out and take their place. 3. The trees are examined for the worm at the root, late each spring and early in autumn, according to the well-known mode of cutting them out and destroying them. An oyster knife, which is pointed and has a double edge, is preferred for this purpose. 4. Good, clean cultivation is given, free from grass and weeds, a most important requisite—manure, such as is required for the successful growth of potatoes, beets and turnips among the trees, is applied; and twice a year a handful or two of a mixture of one-third potash, and two-thirds salt for each tree is applied and forked into the soil. With this treatment the trees are healthy, vigorous, productive, and long-lived; and some on the grounds measure over a foot in diameter.

Frost in Valley

An article is copied from the "*Revue Horticole*" showing that considerable differences in temperature exist in the same neighborhood, in consequence of slight variations in elevation; and that (away from the influence of large unfreezing bodies of water,) the coldest situations in winter, and hottest in summer, are in sheltered valleys; and that those most equable, or less cold in winter, and less hot in summer, are on more elevated places. It is interesting to see that European horticulturists are beginning to learn, what has been known for many years here, and is now widely understood. (See American Fruit Culturist, pages, 64, 65, 66.)

A Magnificent Lily.

The following account is given of the *Lilium giganteum*:

A lily, the *Lilium giganteum*, is making a great sensation among the English gardeners It grows ten or twelve feet high, the flowering portion measuring twenty inches, and bearing eighteen superb flowers somewhat resembling the common white lily, excepting that they have a deep purplish tinge along the inner edge of each division of the perianth, and measuring five and a half inches across the mouth of the tube. Have any of our gardeners received this plant?

And we would propose the additional question—Is it hardy?

A Huge Pear.

The editor of the Horticulturist has received from Dr. Ward, of Newark, N. J., a specimen of the Duchess d'Angouleme pear, (raised on quince stock, without doubt,) which when taken fresh from the tree weighed thirty-five and a half ounces, or *two pounds, three and a half ounces*. A portion had decayed and was cut out, leaving the weight when received by the editor only two pounds. It measured seventeen inches and three-fourths around the longer way, and fifteen and a quarter the shorter way—consequently it must have been over six inches long, and about five in diameter. A cast is taken from it.

Sowing Wheat with Indian Corn.

There has been a larger extent of wheat sown this year than for some years previous, and it looks remarkably well. I have twenty five acres sown, seventeen of which I sowed among my corn. This plan may be new to some of your readers, so I will describe it as concisely as possible.

About the latter part of August, ten days before I sowed, I went through my corn with the cultivator, twice in a row, crossing the furrows made by the corn plow. At this time the corn had commenced to harden, and stirring the ground helped it, as well as brought the soil into good tilth for the wheat About the 16th Sept. I commenced to sow, having two horses and cultivators ready, and sowed no more than I could cultivate in well in a day, and continued sowing and cultivating until finished one way; then commenced to go through the opposite way. If the wheat shows any signs of sprouting before you finish one way, you must cut up a row or two of corn as far as you have sown, and cultivate the other way.

The present season, as the frost cut my corn before I commenced sowing, I cut it up and put it into shocks, and after cultivating it one way, I harrowed it the other, and now you can see two crops standing on the same piece of ground—"the corn in the shock," and the wheat growing around. As soon as the ground becomes frozen, I shall pass over the field with the roller and flatten down the corn stubbs.

A great many farmers in this section pursue this plan, and find that wheat does as well, if not better, this way than any other. Some top their corn; then pass through the field with their wagons, jerk the ears off and throw into their wagons, and leave the stalks standing, turning their cattle in during the winter. They think it is better for the wheat to leave the stalks, as they catch the snow during the winter and keep the grain covered, and then cut them off with a scythe in the spring, leaving them on the ground. This may be so, as I cannot speak from experience, but the reasoning is good. Wm. F. Sands. *Janesville.*

Inquiries and Answers.

Lime with Manure.—Will it be good economy to mix lime with our barnyard manure as it is made, to break down the woody fibres, or in other words, to decompose it in a shorter time than it otherwise would be? If it is believed by chemists that the lime would release the ammonia, could not that be prevented by using plaster or gypsum frequently? David Miller *Brownsville, Pa., 27th of* 10th *mo.*, 1856. [Our own experience is, that lime tends rather to *preserve* than to *destroy* vegetable fibre. Lime whitewash invariably prevents wood from decaying. Ashes, on the other hand, softens it. We do not think the quantity applied to manure heaps would exert much influence in this way, in either direction. *Fermentation* eats up vegetable fibre best; and several inches of soil over the heap will keep in the enriching vapors. In applying lime to manure, we would recommend it to be in connexion with copious applications of turf, loam, or muck.]

Liquid Manure.—I should be greatly obliged, Messrs. Editors, if you or some of your readers would furnish me a feasable plan for saving the urine from stabled animals. A. G. [Mr. Webster adopted the following plan at his farm in Marshfield. The plank, composing the floor of the stables, were laid about an inch apart, and so arranged as to be easily taken up. Beneath this floor about two feet of muck or loam was placed, which effectually absorbed every drop of the urine, and furnished a rich manure.]

Bee-Houses.—Will you be so kind as to give me a plan of a *Bee-House*, through your valuable paper, that will be cheap, durable and *thief-proof*—one that will hold from twenty to twenty-five swarms, and oblige Jareb Case. *Troy, Bradford Co., Penn.* [We shall be greatly obliged to any of our readers who will furnish us such a plan as is desired by Mr. Case.]

Washing with Hard Water.—How is hard lime stone water best made fit for washing? A. B. *Anna, Ill.* [To render hard limestone water soft, apply about two quarts of good wood ashes to a barrel of water, mix it well, and after standing over night, it will be fit for use the next morning. The best way to mix it, is to put the ashes in first, and by dashing in the successive pails of water, it is thoroughly mingled and the potash dissolved, which softens it. Water of different degrees of hardness requires different portions of ashes, but the above named quantity will do for the hardest usually occurring.]

Clarifying Molasses.—By what process can *cheap, rank*, black molasses be made to have a pleasant taste, so as to be fit for table use? A. B *Anna, Ill.* [To clarify such molasses, add one egg, which has been thoroughly beaten, with half a pint of skim milk, to two gallons of molasses. The whole is then heated over the fire and skimmed as long as scum rises. The process will then be accomplished.

Skinner's Centrifugal Churn.—Where can it be purchased? I saw an account of its work, in the Co. Gent. sometime back, and think it just the thing. By answering the above inquiry through your columns you will confer a favor on W. A. Brusle. *New-York.* [We do not know where this churn is manufactured. Mr. I. S. Eastman, Deerfield, N. Y., owns the patent right, we believe, for the eastern part of the State, New-Jersey, the New-England States, &c, &c., and he would probably be glad to afford every information to our correspondent, who can address him as above.]

Japan Peas.—I occasionally receive some new-fangled affairs from my friends or the Patent Office, which I do not know what to do with. I have some on hand at present, in the shape of Japan peas. Will you have compassion on my ignorance, and tell me what to do with them, and what use to make of them? Must I stick them, or do they belong to a species which I once found in an old seed-bag, labelled as "peso which dose not vine." L. *Ulster Co., N. Y.* [The Japan pea is a bushy upright plant, growing three or more feet in height, and branching near the ground. To secure large and showy plants, the seed should be planted one in a hill, at a distance of about three feet. It will not probably ripen its seed so far north as Ulster, but if it does, you may cook it for your own use, if fond of peas—or feed it to your pigs.]

Dioscorea Batatas.—Can you tell us how this plant has succeeded the past season? I have received Mr. Prince's new advertisement of it, in which it is said that "millions of dollars will be made by its early cultivators." Now if such lots of money are to be made by it, I should like to come in for a share. But first I wish to know whether it has succeeded so well the past season as to warrant the expectation that there will be an extensive demand for it, at money-making prices, in the future. Tyro. [We cannot answer the above from our own experience or observation. We have seen but one plant of it, which was by no means calculated to excite high anticipations, and the reports of it which have come to our notice, afford no encouragement for a heavy investment in the article. The editor of the *Rural Intelligencer* gives his experience with a root he received last spring, as follows:—"We determined to give it an honest trial, and do the best we could for it. We started it early in our hot bed, which, of course, is rich as manure could make it, and there we let it remain and grow all summer, sole occupant of the premises after the young plants for which the bed was chiefly made were removed. It grew to its heart's content. The other day we concluded to dig for our peck of huge yams, when, after following the main root down one whole foot, we came across one Dioscorea Batatas—one, just one—and that was about as large as a little potato, too small for the pot. We cooked it, however, and found it not a disagreeable esculent. So much for our first experiment." ☞ We shall be glad to hear from any of our readers who cultivated this plant the past season, the result of their experience and their opinion as to the prospect of its supplanting the potato in our field culture.]

Cheap Ice-House.—As the time will soon arrive to lay in a summer's supply of ice—a luxury which will become a necessity after one season's use—I should be greatly obliged if you would give directions for building a cheap ice-house, such an one as will furnish enough for an ordinary family. E. H [Our correspondent will find ample directions for erecting and filling such a house as he wants, in our last vol., page 394. In addition, we copy the following from the Scientific American:

"Any person, in the country, where timber is cheap, can erect an ice-house at but little expense. All that is required is to put up a strong frame for the size of the house required, and board it up close, inside and outside, with a space between, all around. This space is stuffed close with straw or dry saw-dust. The roof is made in the same manner, and the house is then complete. Straw and saw-dust are cheap, and good non-conductors. The house should be situated on a dry spot, and should have a drain under the floor. It should also be convenient, to be filled easily. The walls of stone and brick ice-houses should be double, as well as those of wood. Great care should be used in packing ice,—all the blocks should be clear and solid, and about the same thickness, so that they may be packed close together, and frozen into a solid mass. In favorable situations, good ice-houses may be excavated, like caves, in the face of a hill."

A significant motto for an ardent young farmer would be—*Good implements for the field, and good books for the leisure hour.*

Fruits in Tennessee.—I want to purchase some fruit trees, and would be glad if you would let me know what trees are best for this country. I want apple, peach, pear, and cherry trees, perhaps also some plum trees. B. *Mossy Creek, Tenn.*

We would recommend the following for Tennessee, among others:—

Apples.—Early Harvest, High-top Sweeting, Carolina Red June, Sweet Bough, Red Astrachan, Gravenstein, Porter, Yellow Bellflower, Ortley, Bullock's Pippin, Fallawater, Smokehouse, Rambo, Pryor's Red, Jonathan, Fall Pippin, Rawles' Jennet.

Peaches.—Early Tillotson, Serrate Early York, George IV, Grosse Mignonne, Crawford's Early, Morris White, Oldmixon Free, Heath cling.

Pears.—Madeline, Rostiezer, Brandywine, Skinless, Bloodgood, Tyson, Bartlett, Gifford, Diel, Seckel, Flemish Beauty, Louise Bonne of Jersey, White Doyenné, Washington, Belle Lucrative, Howell, Winter Nelis, Easter Beurre, Glout Morceau.

Cherries.—Mayduke, Early Richmond, Belle Magnifique, Plumstone Morello, Governor Wood, Black Tartarian, Downer, Black Eagle, Elton, Black Heart.

Plums.—Green Gage, Imperial Gage, Smith's Orleans, Jefferson, Washington, Prince's Yellow Gage, Columbia, Reine Claude de Bavay.

Scurvy on Pigs.—I have one that has it very bad. It seems to defy the effects of medicine and keep. I have washed it with water, soapsuds, buttermilk, and bran-water, with sulphur mixed in feed and wash—have rubbed him with lard-oil, fresh butter and cream, but none seem to cure. He runs in a clean orchard, with a plenty of grass and water, but will not wallow in it as other swine do. Can you or some of your correspondents tell me how to cure him? E. B. *Milan, Ohio.*

Scurvy on Pigs.—Let me recommend to your correspondent, E. B. of Milan, O., as a remedy for the scurvy on his pigs—an ointment made from 1 oz. sulphur and 1 oz. sugar lead, finely pulverized, and mixed with 4 oz. of lard. This has been tried with great success when other remedies have failed. H. W. P. *Manchester, Ct., Oct.* 31.

How to Save Carrots.—I have had some experience in saving carrots for spring feeding. After they are pulled and topped, I make a smooth place in the field, and dig a trench, say two feet wide, six or eight inches deep, and then lay in two rails: leaving a space of eight inches between the rails, then lay carrots over these rails so as to leave the space open; then pile on the carrots say three feet high and four wide. In this way you can make your pit any desired length; cover it with a coat of straw and about four inches of dirt: but be sure that the ends of the rails be left open so that the air will pass through from one end to the other, and they will not rot nor freeze to injure. In this way I have kept mine for a number of years in good order. L. C. *Monroe Co., N. Y.*

Product of One Potato.—Last spring I planted a potato weighing exactly two pounds, and having fifty eyes. I cut it into fifty pieces, and put one piece in a hill. This fall I dug and weighed them, and there was exactly 210 pounds or 3½ bushels. This was seeding at the rate of only two bushels to the acre, and the yield was at the rate of 210 bushels to the acre. *Query*—Do not farmers generally use more potato seed than is necessary?

If any one has beaten this, I will try again, for I have a potato now, having nearly 70 eyes. Jude M. Young. *West Day, N. Y.*

☞ We learn that S. H. Burdick, of Brookfield, Mad. co., N. Y., has just purchased of our friend, S. P. Chapman, the cow "Dolly 2d," and bull calf "Young Kirk." The calf is said to be a very fine one—color, a rich roan.

Mice and Apple Trees.—Messrs. Editors—In Essex co., (Mass.) we are in the habit in the fall of banking around young trees, with turf or loam, as a preventative to the gnawing of mice. A man will bank up 500 in a day, with four shovels full of turf around each tree, a foot in height. This keeps off the mice, who keep close to the ground under the snow, and will turn out from the hill so made. Last fall I hilled up 200 young trees in this way, and although mice were plenty not a tree was injured by them. This method saves the farmer the trouble which some take, of beating the snow down around them. J. B. Gale.

Sandwich Islands.—The Pacific Commercial Advertiser, published at Honolulu, of 7th August, furnishes us with an account of the annual fair of the Royal Hawaiian Ag. Society, which was held in that city the previous week, including the list of prizes awarded and the address delivered on the occasion. Prizes were awarded on most of the animals and articles embraced in the prize lists of this country.

Wind Mills.—Which are the best Wind Mills, and what can they be had for? I wish one for irrigating. J. B. Haggin. *Sacremento, Cal.* [Several windmills for farm purposes have been invented and offered to the public of late years, but we are not aware that any of them have had their merits fully established by trial except Halliday's, which has now been in successful operation two or three years. The smallest size is sold for $75, and so on upwards. They are manufactured by the Halliday Windmill Company, South Coventry, Ct.—A figure and description of this windmill are given in the Rural Register for 1856.]

Fine Sheep.—At the late Fair of the Valley Ag. Society, at Winchester, Va., Col. *J. W. Ware*, of Berryville, Clarke Co., received eleven of the twelve prizes on sheep, amounting to $63.

Abbe's Patent Pig Pen.—The only thing new in this pen is the collars. In the 1st vol. of the Farmer's Guide by Stephens, page 346, paragraph 1582, there is a cut of one and description; it is made with stalls instead of collars, and has a swing back so that it can be cleared and filled from the outside, supposed to have been invented by the Duke of Buccleuch, more than 40 years ago. So much for the *Patent Pen.* J. H.

Ethan Allen Beaten.—The great trotting match between Ethan Allen and Flora Temple, for $1,000, came off at Boston on the 5th inst., when Flora beat Ethan in two straight heats. Time, 2.32½ and 2.36½.

Protecting Trees from Mice.

Messrs. Editors—I see by your papers several ways for protecting trees from the depredations of mice. We have a very simple method for keeping Mr. Mouse from our trees. Take two horse-shoe tile—place their bottoms together around the body of the tree—fasten them with a cord, or what is much better, some small brass wire—let the lower end into the ground an inch or more, so that the mice will not work under them. Your tile once purchased, which will cost some three or four cents per tree, you are prepared with a defence for life, which mice will be slow to nibble. Charles Fenner. *Oneida, N. Y.*

Washing Powder.

The best washing powder I know of, is to take one quarter of a lb. borax and add it to one gallon soft soap, dissolved in one gallon of water, and apply as usual to the clothes, and soak at least two hours before washing. They will wash easier and be whiter than usual. W. D. *South Bern.*

Notes for the Month.

Experiments Wanted.—Intelligent breeders have been disputing for many years, without settling the point, whether the Devon or Short-Horn cattle are best or most profitable. The Durham or Short-Horn men maintain "as a matter of course," that they are most valuable, because they mature sooner, and are much larger, whether young or old. The Devon men are sure, that although their animals are smaller, the amount of food they consume is at least proportionately less, and also that their food need not be so rich in quality. Now it appears especially singular to us, that no attempt is made to settle this question by direct experiment, which would be vastly better than abstract reasoning upon it, or the mere assertion of opinion, however stoutly or confidently the assertion may be made.

The same kind of controversy has existed in relation to some fine breeds of pigs, with the same neglect of the only means for its settlement.

Years of dispute have existed in relation to the merits of the different breeds of fowls, the Shanghais, Cochin Chinas, Brahmapootras, and other large animals, as compared with the smaller Dorkings, Polands, &c., without any attempt that we ever heard of to settle the question by determining the relative quantity of food that each would consume for a pound in weight.

Would not the institution of experiments on these subjects, be worthy of the patronage and premiums of the New-York State Agricultural Society?

Am I Ready for Winter?—This is a question which every farmer ought to put to himself, in regard to several departments of his business, in order to ascertain if he has all things in readiness for winter. We do not propose to name all the things, which upon most farms require to be attended to before the setting in of winter, but only two of those which we think are neglected far too frequently. How often, especially in new settlements, are stock of all kinds left unprovided with good shelters or comfortable stabling during the first part or during the whole of winter! Nothing to be seen about a man's premises in the winter gives us a more unfavorable impression as to his character, than the sight of animals suffering from the want of proper shelter and stabling. Another matter much neglected, is the proper care of furrows and ditches to carry off water from the low spots where water is apt to stand after fall and spring rains, killing the wheat or injuring the soil. These should be cleared out and kept clear, as they are often inefficient for the want of a little clearing.

Honey Well Made and Well Marketed.—During a call from our friend and correspondent, Mr. M. Quinby, of St. Johnsville, Montgomery Co., we were informed that he has this year sold upwards of 20,000 pounds of honey, the produce of himself and a few of his immediate neighbors, who were first led by his example to give some attention to the subject—his whole time and that of his son having been devoted to this one specialty during the entire season. A sample, which we received some weeks since, was of the first quality, and not only put up very neatly, but very cheaply—an important matter when the profits of the farmer come into consideration. We had no difficulty in believing what Mr. Q told us of the high prices such honey commanded in New-York, where he takes all he can produce or procure.

Saturday, Nov. 1st, we were shown two samples of the Schuyler Gage, from the well known plum-orchards of Elisha Dorr, of this city. They showed that this is one of the best late varieties in existence, preserving its flavor and plumpness after most kinds are entirely out of season.

Matter of History.—In the Genesee Farmer for November, we find a letter from Mr. N. Goodsell, in which he says:

"Twenty-five years ago the first of last January, I commenced at Rochester the publication of the *Genesee Farmer*, under circumstances which would now be considered insurmountable obstacles."

As a matter of history the above deserves correction. Mr. Goodsell never "commenced the publication of the Genesee Farmer," nor did he ever publish it at all, or have any interest in it except as a contributor to its pages. It was established, published, (some of the time with a partner,) and conducted, from its first issue in 1831 to its union with "The Cultivator" in 1840, by Luther Tucker, the senior editor of this paper. After he had determined on the establishment of the Genesee Farmer, Mr. Goodsell was introduced to him as a capable writer on rural subjects. As Mr. G. contemplated the establishment of a nursery, he very much desired to have his name connected with the proposed paper, and as Mr. T. was then engaged in a political journal, an arrangement was made with Mr. G. by which he was to furnish a certain amount of editorial matter for the paper, for which he was to be paid a specified sum weekly, and to have his name inserted as editor. This was the whole of Mr. Goodsell's connection with or interest in the Genesee Farmer; and from this he withdrew after about two years, and established a paper called "Goodsell's Genesee Farmer," which was, we believe, discontinued before the close of its first volume. It is proper to add that although Mr. Tucker was the conductor of the old Genesee Farmer, from its beginning to its end, the venerable David Thomas, of Cayuga, the lamented Buel and Gaylord, and our present associate, J. J. Thomas, were at different periods, as Mr. Goodsell was during its first two years, regular contributors to its editorial department.

Complimentary.—Fifty of the prominent citizens of Pittsburgh, headed by the Hon. Wm. Wilkins, tendered to Hon. James Gowen, President of the Penn. State Ag. Society, during his recent visit to that city, a public dinner in testimony of their appreciation of his labors in behalf of the farming interests of our country—a testimonial richly deserved, for few men can be found who have labored longer or more zealously in the cause of agricultural improvement than Mr. Gowen. Circumstances, however, requiring Mr. G.'s immediate return home after the close of the State Fair, he was under the necessity of declining the proposed honor.

A Trial of Native Wines.—President Wilder was polite enough to subject several samples in this department of domestic industry, to the trial of a number of invited guests, at his rooms at Philadelphia, one evening during the fair. They included

Haa's Catawba Hock made in Booneville, Mo., 1853.
The same of 1855.
Sparkling Catawba of the same maker.
Still Catawba, from Werk of Cincinnati.
Sparkling do. do. do.
Sparkling Isabella do. do.
Sparkling Catawba from Longworth of Cincinnati.
Still do from Yeatman do.

Also several other samples of different manufactures, including some from Los Angelos, Cal.

A very pleasant evening was thus sociably spent, and high encomiums were passed, especially upon the *sparkling* wines, while there was too little difference between the various descriptions to enable any but a very well-educated taste to express a decided preference for either. How the judges decided will be found among our extracts from the premium list. Beside the general conversation, some interesting remarks were listened to from several gentlemen toward the close of the evening, and the meeting broke up amidst a serenade to the President from a band in the street below.

The To-Kalon Grape.—Our readers will recollect the great diversity of opinion which prevailed among the members of the American Pomological Society at Rochester, in relation to this grape. While C. M. Hovey and others could hardly distinguish it from the Catawba, C. Downing regarded it as quite distinct, and of a much darker brown than the Catawba, Dr. Grant pronounced it "nearly black," and A. Saul, "black." It was therefore left for further examination.

We have cultivated this grape, as received from the late A. J. Downing, for several years, and have found it a very fine variety. It is larger and rounder than the Isabella, and as Dr. Grant remarked, is *nearly black*. We have not yet fruited it sufficiently to ascertain its productiveness, but it will not probably equal the Isabella and Catawba in this respect.

Hamburgh Grapes in Open Air.—In a fine collection of grapes ripened in open air, presented by William H. Chase, of Union Springs, Cayuga Lake, N. Y., were specimens of the *Black Hamburgh*, of a fine dark color, and nearly at full maturity, which had grown fully in open air. The warm banks of the lake, seem especially favorable to the successful growth of fine grapes, the Catawbas being perfectly ripened.

Agricultural Fairs.—The following remarks form the conclusion of an article on this subject in the Philadelphia *Ledger* of a recent date: "There is danger, however, that the whole system may be ruined, by the growing tendency to transform fairs into temporary race-courses. We see, with regret, an increasing proclivity in this direction. Every year, at our principal fairs, the race-track is made larger, while the stalls for cattle are comparatively neglected. Go to any fair, the one at Powelton, for instance, and you will see tens of thousands breathlessly watching the struggle between competing horses, while only a few hundreds are to be seen, scattered here and there, on other parts of the ground. The effect of this, surely, is not to foster a love of agriculture, but rather to implant a passion for horse-racing. Of course, we are aware of the reason, which induces those who get up fairs to make the race-track so prominent: they wish the fair to pay, and they find this the readiest method. But we submit that the excessive development given to this feature is at war with the true purposes of such fairs, and that, sooner or later, it will bring them into discredit, if not lead to their decline."

The Illinois State Fair.—We have as yet received no direct account of this exhibition, held as Alton, as our readers are aware, the first week in this month. So far as we have seen it noticed, the exhibition, except in stock, does not appear to have been a large one. The *Illinois Farmer* says:—"The drought and the cold weather for the first two days were unfavorable; but there was a large attendance of people, and on Thursday, according to the most reliable estimates, there were from 16,000 to 20,000 people upon the grounds. The cattle exhibited were fine, and more numerous than at any preceding fair. The same fact may be stated in regard to horses, mules and jacks. There was a good show of sheep; and a tolerable show of hogs We say tolerable, because we think there were better hogs in Madison county than were exhibited at the Fair. The fruit department was well sustained in apples; there was little other fruit presented."

Mr. Buckalew's Mules.—We should not neglect to make a note about the extraordinary size and beauty of the Premium Mules at Philadelphia, shown by that celebrated breeder of those useful animals, Jas. Buckalew, Esq., of Jamesburgh, N. J. One pair which were in harness before a carriage, were *eighteen hands in hight*, and far superior, both in size and beauty, to any we ever saw before. We were informed that the weight of one of them was 1450 lbs.

Penn. State Fair.—The Farm Journal for November says—"The stock department was filled in every particular, and the display of sheep unprecedented at any former State Fair. This was anticipated from the proximity of the exhibition to the fine sheep growing districts of Western Pennsylvania. Every other department of the exhibition was well represented, and we are pleased to learn that notwithstanding the unfavorable weather of the first two days of the exhibition, the receipts were large, and after paying premiums and expenses, a handsome surplus will be left for the use of the Society. This is gratifying, and what we predicted would be the case, judging from the well known spirit of enterprise which characterises our Western Pennsylvania Farmers."

Since the above was in type, we have received a letter from a valued correspondent in Pennsylvania, who was present at the State Fair. He says—"It was, notwithstanding one or two days of unfavorable weather, and the antagonistic exhibition at Philadelphia, a very successful and creditable display—a truly legitimate affair, compatible with the principal objects of an agricultural society, and calculated to impress its awakening influences on the real tillers of the soil." After alluding to the exhibitions of female equestrianism and the trotting matches—recently introduced at so many of our agricultural shows, our correspondent says—"If the landed interest do not look to it in time, all the advantages obtained through Ag. Societies and their exhibitions, will not only be perilled, but wholly lost."

Town Ag. Societies.—We have received a paper giving a full account of a Town Fair, held at Wilmington, Vt., on the 9th of Oct., which seems to have been participated in by all the inhabitants of the town, if we may judge from the extensive list of prizes awarded. Among the pleasing objects present were two teams of oxen—one with 53, and the other with 59 yoke. Both teams were attached to carts decorated with flags and flowers and farm products. There were quite a number of sales of stock on the occasion, and among them we notice ten yoke of oxen, which sold at prices ranging from $160 to $200 per pair—pretty good evidence of their quality.

Handsome Wool.—Messrs. Barney and Hard of Arlington, Vt., have left us a sample of beautiful wool from their New-Oxfordshire sheep. It is of one year's growth, and measures about nine inches in length.

More Good Stock for Kentucky.—Mr. J. P. Fisher, of Danville, Kentucky, last week purchased of Mr. S. Thorne, of Thornedale, Dutchess county, the fine young bull "Tom Moore." He was calved Aug. 20, 1855—got by "Young Balco"—dam "Lallah Rookh," the cow that took the first prize at the late National Exhibition at Philadelphia. She was then thought by many to be too fat to breed, but since her return home she has dropped twin-calves, being the second pair she has had. Mr. Fisher also purchased of Mr. T. a very fine yearling South-Down ram and some ewes of the same breed.

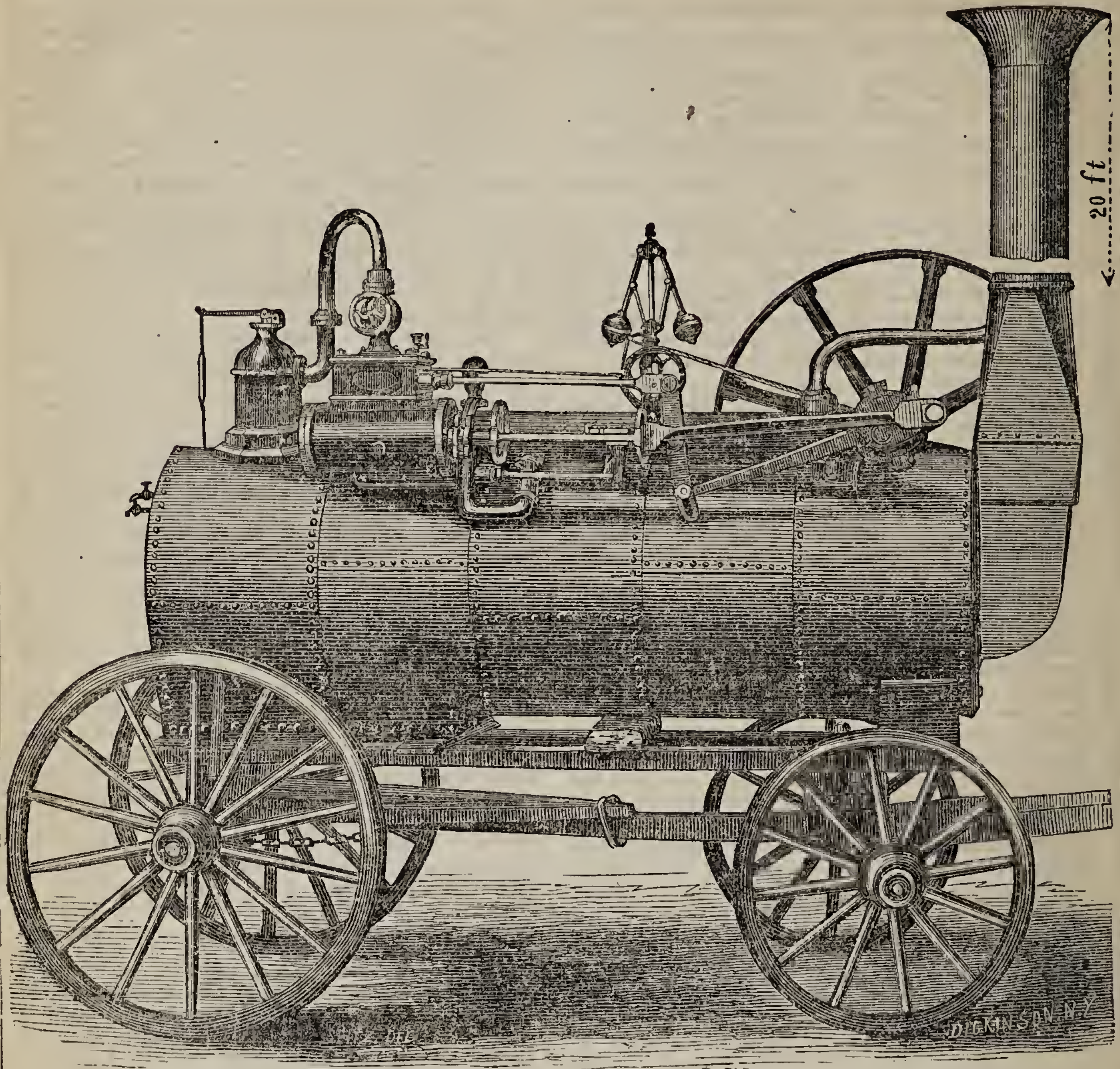
Public Documents.—We are much indebted to Hon. Asbury Dickins, the courteous Secretary of the U. S. Senate, for several very valuable volumes of public documents, as follow:—

Report of the Commissioner of Patents for the year 1855. *Arts and Manufactures.* Two vols.

Commerce and Navigation. Report of the Secretary of the Treasury, transmitting a report of the Commerce and Navigation of the United States for the year ending June 30, 1855. One vol.

Message from the President of the United States to the two Houses of Congress at the commencement of the First Session of the 34th Congress. With accompanying documents. In three Parts.

Maps and Views to accompany Message and Documents, being Part IV of the preceding.



PORTABLE STEAM-ENGINES AND PORTABLE CIRCULAR SAW-MILLS.

Blandy's Steam-Engine Works, Iron Foundry and Machine Shops,

ZANESVILLE, OHIO.

THE Portable Steam-engine is so far in advance of the cumbrous stationary engine, with its separate boiler or boilers, buildings, masonry, and tall chimneys, &c., that it is, in a great measure, superseding their use.

To all portable engines heretofore offered to the public, experience has pointed out the serious objection of the want of stability in affixing the working parts to the thin shell of the boiler, causing derangement of these parts by the variation of the boiler from hot to cold, and the tendency to steam leakage from the innumerable perforations unavoidable in all such arrangements, and the difficulty of draught, which has had a tendency to discourage their general substitution for other powers.

The Blandy Steam-engine Works believe they have in their Portablo Engines overcome successfully all these objections in their improved model, combining the utmost simplicity, efficiency, and durability, at such prices as will warrant their employment on farms, plantations, work-shops, and for cutting lumber, one of its prominent uses, pumping water, ginning cotton, &c. They are adapted to every purpose where power is required, from threo to forty horse; wood or coal, or sawdust, can be used separately or mixed as fuel.

PRICES AND POWERS.

3 Horse Power	$300	12 Horse Power	$1,000	25 Horse Power	$1,800
6 "	600	15 "	1,200	30 "	2,000
8 "	800	20 "	1,500	35 "	2,300

This includes stack and everything except belt.

BLANDY'S CIRCULAR SAW-MILLS.

The very best now before the public, costing much less than the old stationary mills, and sawing more than double the number in a given time. We have a large number of certificates from parties using our engines and mills, who state with great uniformity that they are cutting from five to six thousand feet of oak boards, and from nine to ten thousand feet of poplar or other soft timber per day of ten hours. Also, Stationary Steam-engines, and every description of machinery made to order.

Circulars with descriptions forwarded on application, and orders promptly attended to.

Address, **BLANDY'S STEAM ENGINE WORKS,**
Zanesville, Ohio.

American Herd Book, Vol. 3.

SHORT-HORN CATTLE BREEDERS, who wish the pedigrees of their stock recorded in this work, will please send them in by the first day of December next, or as soon after as possible, that I may commence their compilation. The number for record promises to be quite as extensive as in the Second Volume. Persons wishing circulars giving directions for making their pedigrees, will please address

LEWIS F. ALLEN,
Nov. 13—w4tm1t. Black Rock, N. Y.

IOWA LANDS.

For Sale on Long Credit,

2,000 ACRES of rich farming lands in Adair, Mitchell, Worth and Wright counties, State of Iowa; are offered for sale in lots of Two Hundred acres or more, payable one dollar per acre cash, and the remainder in annual instalments with interest. These lands were judiciously located for stock-raising and grain-growing, and are near the proposed rail-road routes, which will lead from the Mississippi to the western limits of Iowa.

A bond will be given to take back the lands if the purchase is not satisfactory, any time within twelve months from sale. For further particulars apply to

J. SMITH HOMANS,
(Editor Bankers' Magazine.)
Nov. 20—w&m1t* 162 Pearl-st., New-York.

South Down and Leicester Sheep.

I HAVE a few Bucks and Ewes of the above breeds for sale. I would spare a few *premium Merino* Bucks and Ewes, at *very low* figures, to such as want. *Try me.*

E. G. COOKE,
Nov. 13—w2tm2t* Belleville, Jefferson Co., N. Y.

THE DOLLAR NEWSPAPER,

PHILADELPHIA.

A CHEAP FAMILY PAPER.

A GREAT feature of this Family paper is
AN AGRICULTURAL DEPARTMENT,
wholly made up of original articles.

Another prominent feature is

ITS EARLY PUBLICATION OF THE LATEST NEWS!

And carefully corrected reports of the

WHOLESALE MARKETS, PRICES OF FLOUR AND GRAIN, THE MONEY AND CATTLE MARKETS, PRICES OF STOCK, ETC.

It is in all respects a first-class Family Newspaper, made up for the information of business men and heads of families.

FOR THE YOUNG AND IMAGINATIVE,

It has in course of publication a series of

ORIGINAL NOVELETTES, POETRY, ETC.

The first week in January a new and original novelette, written expressly for the "Dollar Newspaper," by CHAS. J. PETERSON, Esq., author of the celebrated stories "Kate Aylesford," "Cruisings in the Last War," etc., will be commenced, called

"Mabel, or Darkness and Dawn."

In the interim two original shorter novellettes, will be published, one of which is called

The Black Vulture—A Tale of the South.

And the other a Love story, called

Bertie: or Love's Dream Twice Told.

THE FOLLOWING ARE THE TERMS.

To single subscribers, per year,		$1 00
Clubs of six for		5 00
Clubs of thirteen,		10 00
Clubs of twenty, and one to the getter up,		15 00
Clubs of twenty-seven,	" ",	20 00
Clubs of thirty-four,	" "	25 00
Clubs of fifty,	" "	35 00
Clubs of seventy-five,	" "	50 00

☞ No subscriptions acknowledged unless accompanied with the money. Address

WM. M. SWAIN & CO.,
Publishers of The Dollar Newspaper,
Dec. 1—m1t S. W. corner Third and Chestnut, Philada.

Improved Short-Horns for Sale.

THE Herd of the subscriber being too large for the size of his farm, he wishes to dispose of four very superior cows, all got by imported bulls, and five heifer calves got by imported Bates' bull Lord Ducie (13,181) out of some of his best cows Also roan bull calf Beaufort.got by Lord Ducie (13.181) out of Daisy 7th by Duke, 444 A. H. B., &c, &c. The cows for sale are very superior milkers, as are also the dams of the calves. Direct DR. HERMAN WENDELL,
Oct. 30—w&mtf Albany, N. Y.

Suffolk Pigs and Brahma Fowls.

MY SUFFOLK BOAR "PRINCE ALBERT," 16 months old, is for sale—he is a *fine animal.* I shall have a few pairs of pigs of his get for sale soon—price $12 to $15 the pair at 10 weeks old. Also a few pairs or trios of *Brahma Fowls.* Give me a call. E. G. COOKE,
Nov. 13—w2tm2t* Belleville, Jefferson Co, N Y.

To Farmers and Manufacturers.

The U. S. Flax and Hemp Co., No. 28 Pine-st.. New-York

MANUFACTURE the economical and yet successful Flax and Hemp Machines, and are prepared to fill orders for the different sizes of Hand and Power Flax and Hemp Brakes and Scutches made by them, for Mill and Plantation use, and sold with the fullest guarantee as to durability and performance.

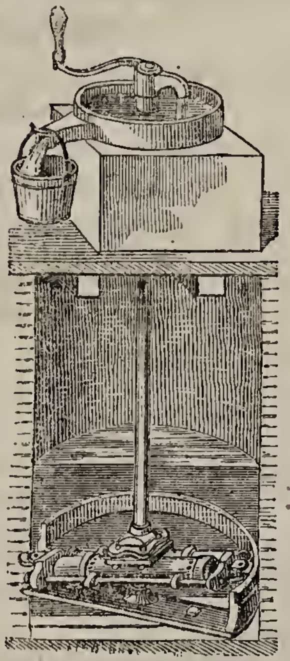
Sixty tierces prime Flax Seed, selected for sowing. fo sale. Orders must be directed to E. F. HOVEY, at the Depot of the Company, 28 Pine Street. Refer to

EDW. S. GOULD,
July 10—w1tm5t* 17 William-st., New-York.

Lindscy's Double Acting

ROTARY FORCE AND LIFT PUMP.

THIS pump has just been patented in AMERICA and ENGLAND, and far excels any pump heretofore invented; its peculiarities are *simplicity, power* and *cheapness.* Its simplicity: there is nothing about it but iron and cast metal, and it can be taken apart and put up by any one, and will last for an age. It has the power to raise water HUNDREDS OF FEET. This pump is from 42 to 30 inches in diameter and must set in the well or water. Water rises in it by hand 100 feet per minute! For cheapness: a No. 1 pump (for all ordinary purposes) complete, and fifty feet of pipe, costs but $30! The handle at the top, turns the pipe and pump, and every revolution fills the cylinder twice, affording an abundant supply of water with the least possible expense and labor. It is peculiarly adapted to DEEP WELLS, RAILROAD STATIONS, MINING AND MANUFACTURING PURPOSES. This pump does not throw water, and is guarded against freezing and rust. Practical and scientific men pronounce it as without an equal, for all that is here claimed for it. The "Scientific American," after seeing it in operation, says: "This pump is very simple in construction, not liable to get out of order, durable, easily operated and economical; we regard it as an excellent improvement." Circulars, with an accurate drawing and full description, sent free of charge to all parts of the country. No. 1, has a one inch pipe; No. 2, 1¼ inches; No. 3, 1½ inches; and the prices, with 50 feet of pipe, **$30, $42,** and **$54**; the No 2 and 3 are desgined for *very deep wells, railroad stations, &c*, where much water is required. The subscriber is the general agent for the sale of these pumps to all parts of the world, and EXCLUSIVE AGENT FOR NEW-YORK. Orders must be accompanied by the CASH, and should be explicit as to the kind of pump wanted, depth of well, shipping address, &c. They will meet prompt attention. A pump and pipe weighs about one hundred and seventy pounds. No charge for shipping or cartage. Wells over fifty feet should have extra gearing, which costs $3. JAMES M. EDNEY,
Commission Merchant, 56 John-Street, N. Y.



For sale also by H. LINDSEY, Inventor, Asheville, N. C.
July 3—weow2tm6t

PROSPECTUS FOR 1857.

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4th, 1821.

The publishers of this old and firmly established paper take pleasure in calling the attention of the public to their programme for the coming year. Surfeited with politics, the claims of Literature will be more than ever appreciated by the reading world. We have therefore already made arrangements with the following brilliant list of writers :—

WILLIAM HOWITT, (*of England,*) ALICE CARY, T. S. ARTHUR, MRS. SOUTHWORTH, AUGUSTINE DUGANNE, MRS. M. A. DENISON, *the Author of "ZILLAH," &c., &c.*

We design commencing, in the first number in January next, the following original novelet :—

TALLENGETTA,

OR

THE SQUATTER'S HOME.

By William Howitt, author of "Rural Life in England," "Homes of the Poets," &c., &c.

This is a STORY OF AUSTRALIAN LIFE, Mr. Howitt having visited Australia expressly with the object of acquainting himself with the novel and romantic aspects under which nature and society present themselves in that singular region.

The following Novelets will then be given, though probably not in the exact order here mentioned :—

THE STORY OF A COUNTRY GIRL.

By Alice Cary. An original Novelet, written expressly for the Post.

THE WITHERED HEART.

An Original Novelet, written expressly for the Post, by T. S. ARTHUR.

LIGHTHOUSE ISLAND.

An Original Novelet, by the author of "My Confession," "Zillah, or the Child Medium," &c.

THE QUAKER'S PROTEGE.

An Original Novelet, by Mrs. MARY A. DENISON, author of "Mark, the Sexton," "Home Pictures," &c.

AN ORIGINAL NOVELET,

By AUGUSTINE DUGANNE, author of "The Lost of the Wilderness," &c., is also in course of preparation for the Post.

We have also the promise of a Short and Condensed

NOVELET by MRS. SOUTHWORTH,

to run through about six or eight numbers of the Post.

☞ In addition to the above list of contributions, we design continuing the usual amount of FOREIGN LETTERS, ORIGINAL SKETCHES, CHOICE SELECTIONS from all sources, AGRICULTURAL ARTICLES, GENERAL NEWS, HUMOROUS ANECDOTES, View of the PRODUCE AND STOCK MARKETS, THE PHILADELPHIA RETAIL MARKETS, BANK NOTE LIST, EDITORIALS, &c., our object being to give a Complete Record, as far as our limits will admit, of the Great World.

ENGRAVINGS.—In the way of Engravings, we generally present two weekly—one of an instructive, and the other of a humorous character.

The Postage on the Post to any part of the United States, paid quarterly in advance, at the office where it is received, is only 26 cents a year.

TERMS (Cash in advance)—Single Copy $2 a year.

4	COPIES		$ 5 00 a year.
8	"	(And one to the getter up of the Club,)	10 00 "
13	"	(And one to the getter up of the Club,)	15 00 "
20	"	(And one to the getter up of the Club,)	20 00 "

Address, *always postpaid,*

DEACON & PETERSON,
No. 66 South Third Street, Philadelphia.

☞ SAMPLE NUMBERS sent gratis to any one, when requested.

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (the notices of new contributions and our terms,) for their *editorial* columns, shall be *entitled* to an exchange, by sending us a marked copy of the paper containing the advertisement or notice.
Dec. 1—weow2tm2t

Suffolk Pigs,

Of pure blood, for sale by B. V. FRENCH,
Feb 1—1mly Braintree, Mass.

Devon Cows,

Heifers, and Bull Calves—pure blood—for sale by
Feb. 1—mly. B. V. FRENCH, Braintree, Mass.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone, .
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,
GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

FOR SALE,

CAHOON'S SEEDLING PIE PLANT,

Gooseberries, Currants, Grapes, Shrubbery, Bulbs, Tubers, &c.

I WILL securely pack in boxes, and forward according to directions, Ten Roots of my Seedling Rhubarb for $5; Five Roots for $6; One Root for $1; by the Hundred $40. Cash, in all cases, to be sent with the order.

TESTIMONIALS.

From the American Institute Proceedings, Aug. 5th, 1856:

MAMMOTH PIE-PLANT.—SOLON ROBINSON exhibited a stalk of Cahoon's Mammoth Seedling Rhubarb, grown at Kenosha, Wisconsin, that excited considerable curiosity. It was out of a box sent to The Tribune Office for distribution, and some of it on trial was found as rich and tender as that of smaller growth. It is supposed to be the most productive variety grown for culinary purposes, and should be in every market garden, and then, possibly, it would be grown in such abundance that it could be purchased by people in ordinary circumstances.—*N. Y. Tribune.*

Association for the Exhibition of the Industry of all Nations, NEW-YORK, July 4th, 1854

B. P. CAHOON, Esq —Dear Sir—This is to certify that specimens of your "Seedling Pie Plant," are on exhibition at the Crystal Palace, and deserving of special approbation for mammoth size and excellence of quality. They are superior to any production of the kind on exhibition.

Yours, Truly, P. T. BARNUM, President.

"We have received from Mr. CAHOON a box, well worthy the long journey from Wisconsin here. Two stalks we found to weigh respectively two, and one and a half pounds, one of them being *thirty-four inches in length.* The four stalks from plants of two years' growth, weighed together eight and one-half pounds—the largest one by itself *two and three-quarters pounds.* This last was 20 inches in length to where it was divided into smaller branches, *eleven inches in circumference* where it was taken from the root, and *seven inches around* in the smallest place. The stalks from this year's plants weighed, four of them, six and three-quarters, and another lot of the same number, four pounds. They are certainly superior to anything we have seen of the kind."—*Country Gentleman.*

MAMMOTH PIE-PLANT.—B P. Cahoon, Kenosha, Wis., has just sent us three Pie Plant leaf stalks that out-go anything we have ever seen of the kind before; as after performing the long journey from their place of growth—in what manner we are not informed—the three stalks weigh eleven and a quarter pounds.—*N. Y. Tribune.*

To the Cincinnati Horticultural Society:

Being on a tour through Wisconsin, I called upon Mr. B. P. Cahoon, of Kenosha, who has a remarkable variety of Seedling Rhubarb. I examined his plantation of about 9,000 plants, and its wonderful properties have not been overrated. The Victoria I saw growing alongside of his Seedling, subject to the same treatment—soil identical—would not weigh one-fourth as much as the Cahoon Seedling I can, through your Society, recommend the Plant to the notice of amateurs and cultivators as the best plant known. His stalks for market would measure from three to four inches wide, two or three inches thick, and two feet long, and so tender that many leaves I saw broke down with their own weight. It is a chance seedling, originated by Mr. Cahoon, from seed given him at Chicago, and was the only plant from the seed that was worth cultivation. Respectfully, Yours,

Cincinnati, Aug 24th, 1855 JULIUS BRACE.

We counted on one root fifty-five stalks, of which the longest was two feet in length from root to leaf, and would girt eight inches or more. The others were of all sizes down to fifteen inches in length, and an inch in diameter, though the average would be twenty inches long and four or more in circumference. This root was not an unusual size, and was only an average of those which have stood three years and are allowed a fair chance Mr. C. showed us a stalk preserved in spirits which is five and a half inches wide by twenty-seven long —*Prairie Farmer, for September,* 1855.

Address B. P. CAHOON,
Oct. 9—w2tm2t Kenosha, Wis.

KINDERHOOK NURSERY.

THE subscriber having purchased the Kinderhook Nursery of Mr. Henry Snyder, has ready his catalogue of FRUIT and ORNAMENTAL TREES, SHRUBS, VINES, &c., with prices attached, and will forward to all those whose applications are accompanied with a stamp. Address

JOHN H. CORNING,
Aug. 7—wtfm4t Valatie, Columbia Co., N. Y.

UNITED STATES AGRICULTURAL

Warehouse and Seed Store.

MAYHER & CO., Nos 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements,

FIELD AND GARDEN SEEDS,

ever offered for sale in the United States

Among our collection may be found the following, viz:—

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle D and F Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

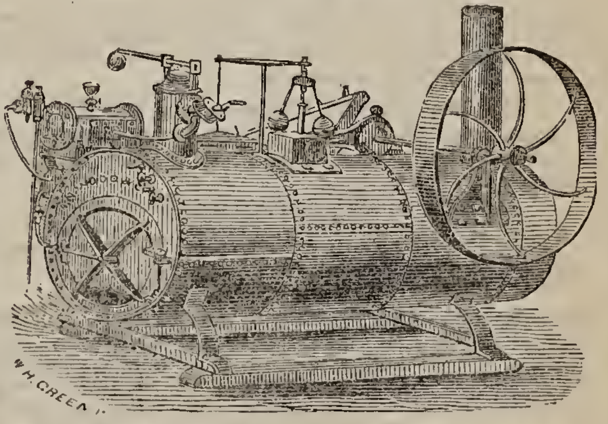
Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf



PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

	PRESENT LIST OF PRICES.	Weight.
2½ horse power,	$225	1500
3 do	$275	1800
4 do	$340	2000
6 do	$520	3500
8 do	$680	4500
10 do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.

Jan. 31—wtf—May 22—mtf A. N. WOOD & CO.

Suffolk Pigs for Sale.

I HAVE now for sale twenty-three thorough-bred Suffolk Pigs—four litters from one to six weeks old, that will pair well for breeding.

Prices, well boxed and shipped as freight or by express,
6 to 9 weeks old, $25 per pair or $15 single.
9 " 12 " 30 " 20 "

Catalogues containing full pedigrees will be forwarded upon application to

THOS. GOULD,
Nov. 27—w3tm1t Aurora, Cayuga Co., N. Y.

Hay and Straw Cutters.

A VERY large assortment for sale at a large discount from the list prices at the Excelsior Agricultural Works.

RICH'D H. PEASE,
Oct. 30—w4tm1t 369 & 371 Broadway, Albany, N. Y.

NORTH DEVON CATTLE.

I OFFER my *first-prize* yearling bull "*Grand Duke*" for sale, as he is connected to some of my stock. I would spare a few heifers and heifer-calves—all of them *choice animals.*

E. G. COOKE,
Nov. 13—w2tm2t* Belleville, Jefferson Co., N. Y.

EVERY FARMER HIS OWN MILLER.

Excelsior Farm Mill.

THE subscribers offer their new mills to farmers and others using feed, for the purpose of grinding corn and cob, shelled corn, oats, &c., for feed or family use, and claims that they will do more and better work than any other mill. It is an established fact that no farmer should feed a grain of oats or kernel of corn without grinding, and every one can easily figure the cost of getting feed ground, in time, toll, waste, teaming, and other annoyances. Suppose a farmer feeds 400 *bushels of all kinds of grain in a year, and takes to mill* 40 *bushels at a load, and spends an average of one day of man and team, equal to ten loads,* $3 *per day,* say..............................$30 00
" for tolls on 400 bushels, ⅛ 50 at 4s 25 00
Making..............................$55 00

or more than the price of a mill saved in one year, if he has a mill, and all cattle and horses relish and thrive on ground feed. The price of the mill is $45 without the cob-cracker, $50 with the cob-cracker.

Local agents wanted. Address

RICH'D H. PEASE,
Nov. 20—w1tm1t 369 & 371 Broadway, Albany, N. Y.

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